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ABSTRACT

This report examines differences between undergraduates who attended postsecondary institutions in states that provide different levels of student financial aid. The report uses data from the 1995-96 National Postsecondary Student Aid Study. The study evaluated how students combine aid types and sources, price of attendance, and personal characteristics. It also examined the relationship between these variables and the probability of students attending institutions in either a high- or low-state-aid group. Among findings are the following: (1) in general, students attending institutions in the high-state-aid group were charged higher average tuition than those in the low-state-aid group; (2) undergraduates in the high-state-aid group were more likely to attend private, not-for-profit, four-year institutions than those in the low-state-aid group; (3) undergraduates in the high-state-aid group were younger and more likely to be dependent than those in the low-state-aid group; and (4) there was no significant difference in the percentage of low-income undergraduates attending institutions in either the high- or low-state-aid groups. Thirty-eight tables detail the study's findings. Appended are a glossary and technical notes. (DB)

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Statistical Analysis Report May 1999

Postsecondary Education Descriptive Analysis Reports

State Aid For Undergraduates in Postsecondary Education

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FOREWORD

This report examines the differences between undergraduates who attended postsecondary institutions in states that provide different levels of state student financial aid. Specifically, it describes how students combine their aid types and sources, their price of attendance, personal characteristics, and examines the relationship between these variables and the undergraduates' probability of attending institutions in either a high or low state aid group.

The report uses data from the 1995-96 National Postsecondary Student Aid Study (NPSAS:96). NPSAS:96 is the fourth in a series of surveys conducted by the U.S. Department of Education. NPSAS:96 represents students of all ages and backgrounds at all types of postsecondary institutions (from less-than-2-year institutions that provide short-term vocational training to 4-year colleges and universities) who were enrolled during the 1995-96 academic year. The NPSAS surveys provide information about the price of postsecondary education and how students pay that price.

The percentages and means presented in this report were produced using the NPSAS:96 Data Analysis System (DAS). The DAS is a microcomputer application that allows users to specify and generate their own tables from the NPSAS data. It produces the design-adjusted standard errors that are necessary for testing the statistical significance of differences shown in the tables. For more information about the DAS and directions for obtaining access through the Internet, see appendix B.

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HIGHLIGHTS

A major percentage of postsecondary education funding is contributed by states. States provide most of this support to institutions, but some is in the form of financial aid to students. Most (93 percent) of state student aid is in the form of grants. State funds may be awarded directly to students or used to reduce tuition in public institutions. The amount of student aid provided varies among states.

Even though similarities may exist among states, each represents a unique set of circumstances. State politics, demographics and historical traditions result in various higher education policies. This report divides states into two groups based on level of aid provided, and compares the high state aid group, states that provided $400 or more in financial aid per undergraduate, to the low state aid group, those that provided $100 or less in financial aid per undergraduate. The following states were included in the high state aid group: Georgia, Illinois, Indiana, Minnesota, New Jersey, New Mexico, New York, Pennsylvania, Vermont and Virginia. The following states were included in the low state aid group: Alabama, Alaska, Arizona, Delaware, District of Columbia, Hawaii, Idaho, Montana, Nebraska, Nevada, New Hampshire, North Dakota, South Dakota, Texas, Utah and Wyoming.

The results suggest that students attending institutions located in the high state aid group were charged a higher average tuition than those in the low state aid group. Undergraduates attending any one of the three major institutional sectors (public 4-year, private, not-for-profit, 4-year and public less-than-4-year) in the high state aid group also paid higher tuition than did those in the low state aid group. This comparison provides a chance to evaluate what other student characteristics might be associated with attending institutions in the high state aid group or the low state aid group.

- Undergraduates in the high state aid group were more likely to attend private, not-for-profit, 4-year institutions than were those in the low state aid group. They also were less likely to attend public less-than-4-year institutions than were those in the low state aid group.

- Undergraduates attending institutions in the high state aid group were younger and more likely to be dependent than those in the low state aid group. Undergraduates in the high state

aid group were also less likely to be married and have dependents compared with those attending institutions in the low state aid group.

- In two instances, undergraduates attending institutions in the two state aid groups did not differ from one another statistically. The percentage of enrolled dependent undergraduates with incomes of $20,000 or less is a good measure of the presence of low-income students in postsecondary education. There was no significant difference in the percentage of low-income undergraduates attending institutions in the high state aid group compared with those in the low state aid group. The percentage of low-income undergraduates who were white, non-Hispanic also did not differ significantly between the two state aid groups. In both cases, 73 percent of the undergraduates were white, non-Hispanic. The proportion of enrollment supplied by low-income students and the percent of the enrollment represented by minority students both provide indicators of student access. The information from the high and low state aid groups suggests that state student aid along with the associated institutional characteristics did not have a direct effect on the enrollment of low-income students or minority students.

- Undergraduates in the high state aid group were more likely to have received student aid than were those in the low state aid group. Aid recipients in the high state aid group received $5,810 and those in the low state aid group received $3,869. Those attending institutions in the high state aid group were more likely to have received loans, grants, and work-study awards. Undergraduates in the high state aid group were also more likely to have received federal aid than were those in the low state aid group. Those in the high state aid group who received federal aid also received larger awards on average than those in the low state aid group.

- Subtracting grant aid from tuition and fees results in net tuition. Undergraduates attending institutions in the high state aid group were charged an average tuition of $4,334 compared with $2,099 paid by those in the low state aid group. When all grant aid was subtracted, undergraduates in the high state aid group paid a mean net tuition of $2,947 compared with $1,553 paid by those in the low state aid group.

- The mean net tuition paid by undergraduates attending public less-than-4-year institutions in the high state aid group was $639 compared with $316 paid by those in the low state aid group. However, undergraduates in the high state aid group did not pay a significantly higher net tuition in private, not-for-profit, 4-year institutions or public 4-year institutions.

- Dependent undergraduates in every income category paid a higher net tuition if they attended institutions in the high state aid group than if they attended in the low state aid group. On average, dependent undergraduates with incomes of less than $20,000 paid a mean net tuition of $2,648 compared with $1,616 paid by those in the low state aid group. The only institutional sector in which undergraduates with incomes of less than $20,000 paid a significantly higher net tuition in the high state aid group compared with those in the low state aid group was public less-than-4-year institutions, $644 compared with $261.

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INTRODUCTION

States provide a major percentage of funding for postsecondary education. Most state money is allocated directly to public institutions in the state, but some of it is awarded to students in the form of financial aid. State appropriations for postsecondary education may also be made to operate state boards, coordinating activities and other state-level activities, but these funds are not included in this report. This report reviews the award of state financial aid to undergraduates.

States are at the center of higher education policy in the United States, yet it is hard to generalize about state policies because of the differences among states. Each state is unique, but they have some attributes in common. This report examines the states in two groups, the high state aid group and the low state aid group. The 50 states and the District of Columbia were divided into three groups, depending on their award of student financial aid per undergraduate. The middle state aid group, however, is not examined in this report. The results suggest that the group of states that provides the most financial aid and the group of states that provides the least financial aid differ in several ways that may affect the type and price of education available to students. Each state, regardless of where it falls in the use of state aid, represents a unique configuration of economics, policies, demographics and history.

Table 1 lists the 16 states that comprise the low state aid group, the 10 states that make up the high state aid group, and the 25 states in the middle state aid group that was not included in the analysis. The assignment of states to the three groups was done using National Association of State Student Grant and Aid Programs (NASSGAP) data. The average grant aid as reported in NPSAS: 96 and the estimates generated using the NASSGAP data are rounded. The NPSAS sample is not representative at the state level. The NASSGAP rankings of states on this measure change from year to year, but a general continuity exists over time in the degree to which states use state student financial aid.

Table 1—Mean grant aid as reported by NASSGAP and state aid as reported in NPSAS per full-time undergraduate, according to state aid group, by state: 1995-96 [1,2]

	Grant aid as reported by NASSGAP	Mean state aid as reported in NPSAS[3]
Total	$275	$299
	High state aid group	
State		
Georgia	968	558
New York	847	700
New Jersey	733	728
Pennsylvania	706	666
Minnesota	685	834
Vermont	570	192
New Mexico	506	180
Virginia	461	374
Indiana	420	471
Illinois	417	627
	Middle state aid group	
State		
Washington	387	237
Florida	380	180
Iowa	372	139
Maryland	351	195
Colorado	343	170
Michigan	340	273
California	316	259
Connecticut	315	207
Ohio	308	399
Wisconsin	299	236
Massachusetts	265	203
Kentucky	248	197
Maine	240	194
Oklahoma	219	118
South Carolina	201	161
Arkansas	187	212
North Carolina	184	166
Missouri	169	193
Oregon	166	171
West Virginia	159	60
Mississippi	155	165
Tennessee	141	243
Rhode Island	135	84
Louisiana	125	107
Kansas	113	76

Table 1—Mean grant aid as reported by NASSGAP and state aid as reported in NPSAS per full-time undergraduate, according to state aid group, by state: 1995-96 [1,2]--Continued

State	Grant aid as reported by NASSGAP	Mean state aid as reported in NPSAS[3]
	Low state aid group	
Texas	91	111
Delaware	62	43
Alabama	61	78
Nevada	57	--
Nebraska	41	33
Alaska	37	--
District of Columbia	32	37
Idaho	29	4
South Dakota	23	78
Arizona	20	55
Hawaii	17	140
Montana	14	50
Utah	14	21
Wyoming	14	137
North Dakota	6	53
New Hampshire	4	109

--Sample size too small for a reliable estimate.

[1]Groups based on the estimated state grant dollars per full-time undergraduate enrollment.
[2]States are sorted in descending order of grant aid as reported by NASSGAP.
[3]Care should be taken in using the state aid means reported by state, as the NPSAS samples undergraduates enrolled nationally and does not provide a representative sample of undergraduates in individual states.

SOURCE: Modified and edited version of National Association of State Student Grant and Aid Programs. *27th Annual Survey Report, 1995-96 Academic Year.* (Albany, NY: New York Higher Education Services Corporation, 1997); U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

The amount of student financial aid awarded to students varies among states.[1] Georgia provided $968 in state aid per student, which puts them at the top of the rank order. New Hampshire and North Dakota fall at the bottom of the distribution and award less than $10 per student. These extremes suggest that the award of state aid to students differs among states. This report examines attributes associated with the way undergraduates finance their postsecondary education in states that can be classified as high state aid compared with those attending institutions in the low state aid states.

[1]National Association of State Student Grant and Aid Programs. *27th Annual Survey Report, 1995-96 Academic Year.* (Albany, NY: New York Higher Education Services Corporation, 1997)

One of the differences between high and low state aid states is the average tuition. Average tuition in a state may reflect the combined tuition in each type of institution or different enrollment distributions among institutions with high or low tuition. As will be shown later, undergraduates attending institutions in the high state aid group were charged higher average tuition than those attending institutions in the low state aid group This comparison among undergraduates attending postsecondary institutions in states with different levels of state student financial aid provides a natural experiment to evaluate the differences between groups of states with high aid and low aid approaches to financing postsecondary education.

Johnstone lists the pressures that move states toward high tuition/high aid.[2] First, he believes that state treasuries will continue to feel pressure to reduce spending on health and human services. Higher education institutions can raise tuition to replace declining state support. Many other state services cannot shift their prices to the consumer. Second, many employers are highly mobile, which may force states and localities to provide tax breaks to keep them from moving. Low taxes generally mean less money for higher education. Third, educational access and equal opportunity may not mobilize the same political support as they once did. Current policy debates tend to revolve around outcomes, accountability, and assessment.

Johnstone also suggests a countervailing reason that the trend toward high tuition/high aid will slow. He argues that affordable public higher education has broad political appeal. Continuing increases in tuition may result in stronger complaints from students and their families. Increases in tuition have been slowing recently, which may indicate the cessation of a trend that marked the 1980s and early 1990s.

Some analysts argue that the high tuition/high aid approach to financing public postsecondary education is more equitable and provides a better basis for public support than low tuition.[3] From this perspective, low tuition provides a subsidy for all students, regardless of their ability to pay. High tuition combined with high student financial aid aimed at low-income students provides a more equitable distribution of public subsidies. Supporters of this perspective argue that this policy improves college affordability for low-income students without increasing public subsidies. They further suggest that high public tuition also improves the competitive position of private colleges and universities in the state.

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[2]Johnstone, Bruce. "Patterns of Finance," *The Review of Higher Education*. (Spring 1998), pp. 243-255.
[3]Wallace, Thomas, P. "Public Higher Education Finance," *Change*. (July/August 1993), pp. 56-63.

Low tuition proponents argue that a published tuition provides a clear message about the price of attendance while the amount of student financial aid a student might receive is not as evident until the student makes some effort to determine his or her award. Low-income students might assume the price of attendance is too high because of the posted tuition without ever finding out about the available student aid.[4]

Low-income students are more sensitive to the tuition charged by postsecondary institutions than are higher income students.[5] In most of the studies reported by McPherson and Schapiro, students from families with annual income below $20,000 are identified as low-income. Their research suggests that a $150 increase in the price charged by the institution reduces the enrollment of low-income students by 1.6 percent. The authors conclude that affluent students do not change their enrollment behavior when tuition changes. The price of attendance makes more difference to low-income students than it does to their more affluent peers.

The high tuition/high aid approach to financing postsecondary education also raises a question about which taxpayer pays the public share. High tuition increases the chances that a student will receive federal student financial aid. Increasing tuition in public institutions may replace state tax support to institutions with federal student financial aid going to students. Increasing tuition in a state will, all other things being equal, increase the number of students with need. This suggests that higher average tuition may result in more federal need-based financial aid being awarded to students in the state. This analytic logic does not suggest that state legislators necessarily have a conscious plan to use state policies to leverage federal dollars. The tables in this report will help decide if there is any evidence of students in high aid states receiving more federal aid than those in low aid states.

The decisions state legislators make about public tuition and state aid may influence student access and choice of institutions. A few states, including Washington and Minnesota,[6] link student financial aid to tuition in public colleges and universities in the state. In most states, however, there is little evidence that policy makers consider tuition and student financial aid policy together.[7] An implicit relationship may exist between the two, reflecting the political and financing history of postsecondary education in the state. Legislators in states with a large

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[4]Heller, Donald E. "Student Price Response in Higher Education," *Journal of Higher Education*, Vol. 68, No. 6 (Nov/Dec 1997), pp. 624-659.
[5]McPherson, Michael and Schapiro, Morton. *The Student Aid Game*. (Princeton University Press, Princeton, NJ, 1998).
[6]Griswold, Carolyn P. and Marine, Ginger M. "Political Influences on State Policy: Higher-Tuition, Higher-Aid, and the Real World," *The Review of Higher Education*, Vol. 19, No. 4 (Summer 1996), pp. 361-389.
[7]*Ibid.*

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percentage of undergraduates enrolled in private, not-for-profit institutions may face political pressure to use student aid and increase public tuition to equalize the price of attendance.[8] The information provided in this report will help determine if states awarding higher amounts of student financial aid also have more undergraduates enrolled in private, not-for-profit institutions than is the case in the low aid states. It will also help to describe the relationship between aid and tuition.

Regardless of their local issues, states provide examples that can help federal policy makers evaluate potential student financial aid programs before implementing them nationally. Several states, including New York, developed a guaranteed student loan program before the federal program was launched.[9] In addition, the Georgia Hope Scholarship program provided a model that the Clinton Administration used to develop a national tuition tax credit program.

BACKGROUND

Next to families, states have contributed the largest portion of support for postsecondary education. In 1995-96, states spent $44.4 billion on higher education.[10] Most states allocate financial support directly to institutions. NASSGAP reports a 1995-96 state student financial aid total of $2.914 billion that went to two million students.[11] Seven percent of states' financial support for postsecondary education is in the form of student financial aid.

By one measure, state student financial aid is more than keeping up with tuition increases. According to The College Board, state student financial aid increased 55 percent, from $2.035 billion in 1987-88 to $3.149 billion in 1996-97, in constant 1996 dollars. During the same period, tuition and fees in public 4-year colleges and universities increased from $2,011 to $2,936 per student in constant dollars.[12] That translates into a 46 percent increase. The rate of increase in appropriations for state student financial aid exceeded increases in tuition in public 4-year institutions.

Although state student financial aid represents a small percentage of state support for postsecondary education, it is a meaningful share of grant aid awarded to postsecondary students.

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[8] *Ibid.*
[9] Morse, John in Lois Rice, Ed. *Student Loans: Problems and Policy Alternatives* (New York, NY: College Entrance Examination Board, 1977), p.16.
[10] Hines, Edward R., and Higham, J. Russell III. *State Higher Education Appropriations 1995-96*. (Denver, CO: State Higher Education Executive Officers, 1996).
[11] National Association of State Student Grant and Aid Programs. *27th Annual Survey Report,1995-96 Academic Year*. (Albany, NY: New York Higher Education Services Corporation, 1997).
[12] The College Board. *Trends in Student Financial Aid: 1987 to 1997*. (Washington, D.C.: 1997).

According to The College Board, 14 percent of all the grant assistance awarded in 1996-97 came from states. By comparison, the federal government provided 38 percent of grant aid and institutions provided 48 percent.[13] This accounting does not consider other incidental aid.

Most state aid is in the form of grants, but about 7 percent of the state awards take other forms.[14] Examples taken from the NASSGAP Survey include forgivable loans for potential teachers, state funded work-study programs, community service vouchers, and loans for special populations.

Although most state programs award aid with consideration of financial need, NASSGAP estimates that 15 percent of state aid awards do not include need as a factor.[15] These non-need-based awards are increasing as a percentage of the total. NPSAS:96 data, which provide the basis for this report, do not identify the reasons given for making an award, so these distinctions are not made in this report.

Most states limit awards from their major programs to students attending institutions in the state. Exceptions include Alaska, Connecticut, Delaware, District of Columbia, Indiana, Maine, Maryland, Massachusetts, New Hampshire, Ohio, Pennsylvania, Rhode Island, Vermont, and West Virginia. Overall, states awarded $17 million in state aid, less than 1 percent of the total, to students attending institutions located out-of-state.[16]

According to NASSGAP, some states specify that some student financial aid is limited to students who enroll in private institutions.[17] Several states provided differential aid to students in private institutions. States with tuition equalization grants include Florida, Iowa, Kansas, Kentucky, Michigan, North Carolina, South Carolina, South Dakota, Texas, and Wisconsin. Other states do not have a special program for students attending private institutions, but award a major portion of their aid to students in private institutions. Examples include California, Illinois, Indiana, Maryland, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, and Virginia. Only Nevada and Wyoming make no awards to students in private institutions. This is due, in part, to the fact that few private institutions are located in these states. Twenty-six states, however, include students in private,

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[13] *Ibid*
[14] National Association of State Student Grant and Aid Programs. *27th Annual Survey Report 1995-96 Academic Year*. (Albany, NY: New York Higher Education Services Corporation, 1997)
[15] *Ibid*
[16] *Ibid*
[17] *Ibid*

for-profit institutions in their financial aid programs.[18] In most cases, student participation in these private, for-profit programs is very limited. Due to the small sample size, these students are not examined in the report.

Many states sponsor several student financial aid programs with different purposes.[19] Often these programs limit their awards to particular groups such as minority students, potential teachers or nurses, or dependents of slain policemen. In some programs, the use of multiple award criteria makes it very difficult to untangle the reasons for making the awards. Texas provides an example of how complicated the array of state student financial aid programs can become. The following list of student financial aid programs in Texas hints at the diverse purposes of state student financial aid programs. In 1996, Texas provided at least 12 student financial aid programs. They included a student loan program, a loan repayment plan for graduates who become physicians, a tuition equalization grant program, a grant program for students in public institutions, special scholarship programs such as the early high school graduation scholarship, Aid to Families with Dependent Children, Texas Tuition Assistance Program, State Scholarship Program for Ethnic Recruitment, Nursing Scholarship Programs, Fifth-Year Accounting Scholarship Program, Robert C. Byrd Scholarship Program, and the Texas College Work-Study Program.[20] Not all states provide as many programs as Texas, but most provide several different awards.

The State Student Incentive Grant program

The federal government established a state student financial aid-matching program in 1972 called the State Student Incentive Grant (SSIG) program. In 1995-96, the U.S. Congress appropriated $64 million for the program.[21] The program provides an incentive for states to make grants to students who demonstrate substantial financial need. Within these broad limits, the states have latitude in choosing which students receive these state-matched awards. Each state receives SSIG matching funds generated by a formula based on the states' postsecondary enrollment and their willingness to match the federal amount. Nationally, states provided a 97 percent dollar match, well above the required minimum of 50 percent. The following states made a minimal match (50 to 60 percent of the total) in 1995-96:[22]

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[18]Harmon, Robert T., *Student Financial Aid Study of the States*, forthcoming paper. (Washington, D.C.: Career College Association, 1998).
[19]*Ibid.*
[20]Texas State Coordinating Board. *Statistical Report*. (Austin, TX: 1997).
[21]The College Board. *Trends in Student Financial Aid: 1987 to 1997*. (Washington, D.C.: 1997).
[22]The College Board. *Trends in Student Financial Aid: 1987 to 1997*. (Washington, D.C.: 1997).

Alabama
Arizona
District of Columbia
Hawaii
Mississippi
Montana
Wyoming

The legislation gives the states the option to support work-study assistance with SSIG matching funds. Colorado, Florida, Idaho, Iowa, Kansas, Michigan, Minnesota, New Mexico, Rhode Island, Texas, Vermont, Virginia, and Washington all funded state work-study programs with SSIG funds.

Defining state student financial aid

State financing of students goes well beyond student financial aid. Many states allow public institutions to waive tuition for some students. Technically, this lost income could be included as state aid. In some states, tuition waivers represent lost income to the institution, and in others, the state appropriates funds to the institution to replace the income lost to approved waivers. Most estimates of state aid exclude institutional aid or tuition waivers provided by public institutions. This report follows that convention.

Other state student financing mechanisms fall outside our definition of state aid. These alternatives include state sponsored savings programs that guarantee free tuition when the student enrolls in a public institution in the state. This report also does not include any information on targeted state tax savings that might result from enrolling in college. Cooperative enrollment programs among some states allow students to attend public institutions in other states at resident tuition rates. None of these programs are included in this report because the NPSAS data do not include any information that describes them. Although these state programs help finance students' education, they do not qualify as student aid.

Data issues

This report uses the National Postsecondary Student Aid Study data collected in 1995-96 (NPSAS:96). The data were drawn from a nationally representative sample of students enrolled in accredited postsecondary institutions. The sample does not provide representative data at the state level. The tables and results apply only to undergraduates. The data set includes details on institutional characteristics, description of students, prices of education, and student financial aid

received by students. Several new NPSAS variables were developed for this report. See appendix A for a definition of all variables.

It is not possible to report state specific data because the NPSAS samples undergraduates enrolled nationally and does not provide a representative sample of undergraduates in individual states. It is possible, however, to divide states into groups based on their use of student financial aid and use them to identify commonalties and differences in how undergraduates pursue their undergraduate education and how they finance the price of attendance.

The following tables show three state categories defined by how much financial aid was provided by the state in which the institution was located. (see table 1)[23] This clustering of states makes it possible to identify important variations between students in groups of states that award different amounts of student financial aid. Using data from the 1995-96 NASSGAP report, the 50 states and the District of Columbia were assigned to one of three groups, of which the study only deals with two, based on the state aid dollars awarded per enrolled undergraduate. The high group includes ten states that awarded state aid grants of $400 or more per undergraduate, and the low group includes 16 states that awarded $100 or less per undergraduate. The remaining group of states, the middle state aid group, includes the 25 states with state aid amounts that place them between the top and bottom groups. The majority of state aid is awarded to students who attend school in that state, but some state aid may be awarded by states other than the one in which the institution is located.

Table 2 lists the number of institutions and the number of full-time equivalent students by institutional type and control in each state. This table shows the variation in the number of institutions and students among the states.

[23]The state in which the institution is located defines high and low state aid groups. However, while the majority of state aid is awarded to students attending schools in that state, some of the state aid amounts for students in the high and low state aid groups may not be from the state in which they are attending school.

Table 2—Number of institutions and full-time equivalent students according to institutional type and state aid group, by state: 1996[1]

	Public, less-than 4-year		Public 4-year		Private, not-for-profit, 4-year	
	Institutions	Full-time equivalent students	Institutions	Full-time equivalent students	Institutions	Full-time equivalent students
Total	1,542	3,136,258	614	4,675,367	1,526	2,284,119
			High state aid group			
State						
Georgia	56	57,723	20	131,096	35	52,396
New York	81	172,255	43	259,548	168	326,476
New Jersey	29	79,973	14	101,589	20	43,345
Pennsylvania	61	61,241	45	198,120	106	178,518
Minnesota	48	65,251	12	86,253	35	47,678
Vermont	([2])	([2])	5	13,395	14	11,762
New Mexico	21	27,787	6	37,237	8	2,235
Virginia	32	65,104	15	138,366	33	41,772
Indiana	19	22,819	14	143,614	39	52,777
Illinois	55	184,471	12	157,253	82	129,514
			Middle state aid group			
State						
Washington	34	115,329	9	77,999	24	30,768
Florida	66	206,820	10	159,091	46	71,907
Iowa	17	41,245	3	57,797	37	39,897
Maryland	20	55,660	15	91,079	20	29,538
Colorado	20	45,117	14	106,473	11	15,487
Michigan	30	101,996	16	203,177	57	60,128
California	125	594,311	33	428,588	138	169,492
Connecticut	26	20,344	6	41,681	19	43,693
Ohio	87	93,957	27	216,598	63	93,106
Wisconsin	20	57,732	13	121,480	30	40,600
Massachusetts	27	43,624	15	76,501	76	186,227
Kentucky	50	34,160	8	84,335	27	20,878
Maine	7	4,545	8	21,774	13	12,020
Oklahoma	62	45,527	13	74,656	14	17,920
South Carolina	22	37,568	12	71,405	21	21,784
Arkansas	31	23,513	10	51,553	10	10,103
North Carolina	59	92,038	16	130,686	43	61,448
Missouri	57	43,859	14	92,501	54	69,678
Oregon	17	42,657	8	53,345	21	19,544
West Virginia	19	5,986	12	53,900	12	8,854
Mississippi	22	42,888	9	52,251	12	8,467
Tennessee	40	53,564	10	94,526	41	44,485
Rhode Island	1	8,323	2	16,710	8	29,666
Louisiana	52	27,666	14	123,652	12	22,214
Kansas	30	41,513	11	70,335	21	13,305

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Table 2—Number of institutions and full-time equivalent students, according to institutional type and state aid group, by state: 1996[1]--Continued

	Public, less-than 4-year		Public 4-year		Private, not-for-profit, 4-year	
	Institutions	Full-time equivalent students	Institutions	Full-time equivalent students	Institutions	Full-time equivalent students
			Low state aid group			
State						
Texas	70	241,292	43	330,123	51	84,320
Delaware	3	6,957	2	20,447	4	5,005
Alabama	32	75,019	18	99,954	17	19,378
Nevada	4	17,458	2	21,609	1	424
Nebraska	9	22,586	7	46,153	16	16,588
Alaska	2	320	3	16,411	3	543
District of Columbia	(2)	(2)	2	4,473	15	51,818
Idaho	3	5,999	4	31,520	4	2,015
South Dakota	6	3,736	8	23,365	6	4,051
Arizona	21	78,956	5	82,505	10	6,200
Hawaii	7	15,824	3	17,360	5	10,156
Montana	12	4,704	6	27,576	5	3,537
Utah	10	22,940	5	59,946	2	30,768
Wyoming	7	11,658	1	9,508	(2)	(2)
North Dakota	9	7,046	6	24,522	4	3,233
New Hampshire	4	5,197	5	21,331	13	18,401

[1]States are sorted in descending order of grant aid as reported by NASSGAP.
[2]Not applicable.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Data Analysis System Institutional Characteristics datafile, 1996-97 and Enrollment datafile, 1996.

Fifty-seven percent of the undergraduates were enrolled in institutions located in the middle state aid group (table 3). The middle group of states is not included in the comparisons after table 4. Leaving them out helps sharpen differences that might exist between the high and low state aid groups. Table 3 shows that, on average, the states in the high state aid group enrolled a greater percentage of the undergraduates than did the states in the low state aid group.

Table 3—Percentage distribution of undergraduates according to state aid group, by attendance intensity: 1996

	High state aid group	Middle state aid group	Low state aid group
Total	25.3	57.2	17.5
Attendance intensity			
Full-time	27.6	55.2	17.2
Part-time	22.9	59.1	18.1

NOTE: Percentages may not sum to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

This comparison between the high and low state aid groups allows us to determine what, if any, differences exist in the tuition charged and student financial aid received by undergraduates in the high and low state aid groups. These differences help to explain the relationships between tuition and state aid. The results provide information to answer several questions. Do undergraduates who attended institutions in states with high aid pay higher institutional tuition than do those who attended in the low state aid group? Do undergraduates who attended institutions in states with high aid receive more aid from other sources than do those who attended institutions in the low state aid group? Were undergraduates in the high state aid group more likely to attend private, not-for-profit institutions than those who attended institutions in the low state aid states? Subsequent sections of this report address these questions.

So few graduate and first-professional students received state aid that it is difficult to report statistically meaningful results, so they are not included in this report. According to NPSAS:96, 2 percent of all graduate and first-professional students received state aid. The average state award received by graduate and first-professional students was $1,567.[24]

[24]U.S. Department of Education, National Center for Education Statistics, *1995-96 National Postsecondary Student Aid Study (NPSAS:96)*, Undergraduate Data Analysis System.

The next section provides a national overview of who received state aid, regardless of the state in which they attended. This is followed by a section that describes the differences between students attending institutions in the high and low state aid states. Details are provided for students attending public 4-year institutions, private not-for-profit, 4-year institutions, and public less than-4-year institutions.

NATIONAL OVERVIEW: UNDERGRADUATES RECEIVING STATE AID

Table 4 presents national information describing the award of state aid to undergraduates. Later sections will provide comparisons between undergraduates attending postsecondary institutions in high and low state aid groups.

WHO RECEIVED STATE AID?

Table 4 shows that undergraduates attending private, not-for-profit, 4-year institutions were more likely to have received state aid than were those attending public institutions. Twenty-two percent of the undergraduates who attended private, not-for-profit, 4-year institutions received state aid compared with 14 percent of those who attended public 4-year institutions and 6 percent who attended public less-than-4-year institutions. Undergraduates attending public less-than-4-year institutions were also less likely to have received state aid than were those attending public 4-year institutions. This result is consistent with the proposition that states may use student financial aid to help equalize tuition between public and private, not-for-profit institutions.

Three percent of the undergraduates who were charged tuition less than $1,000 received state aid. This was a smaller percentage than found for undergraduates with higher tuition. The percentage of undergraduates who received state aid was 14 percent for undergraduates who were charged tuition between $1,000 and $2,499 and 25 percent for those with a charged tuition of $10,000 and above. Tuition below $1,000 may reflect attendance at a low tuition institution, part-time enrollment, or both.

Undergraduates who attended school full-time were more likely to receive state aid than were those who attended part-time. Seventeen percent of full-time undergraduates received state aid compared with 6 percent of those attending part-time.

Family income was related to the probability of receiving state aid for both dependent and independent undergraduates. Twenty-three percent of the dependent undergraduates from families with incomes less than $20,000 received state aid. They were more likely to have received state aid than were those from higher income families with the exception of the 19 percent of undergraduates from families with incomes between $20,000 and $39,999 (12, 7, and 4 percent received state aid in the remaining family income categories). Five percent of the

independent undergraduates with incomes of $20,000 or more received state aid. This made them less likely to receive state aid than independent undergraduates with incomes between $10,000 and $19,999 (10 percent), $5,000 to $9,999 (16 percent) or less than $5,000 (19 percent). These results are consistent with the NASSGAP report, which indicated that most state student financial aid was awarded with consideration for financial need.

Family income for dependent undergraduates is a useful analytic measure because it indicates an ability to pay and implies a socio-economic status, since it is often the income of the family of origin. Need is calculated by subtracting the amount a family is expected to pay from the price of attendance.

Family income has a different meaning when applied to independent undergraduates. Single independent students may have a low-income because they gave up their jobs to attend school. Independent student income does not necessarily imply a socio-economic status background.

Undergraduates who were the first in their family to attend college were more likely to receive state aid than those who were not first-generation college undergraduates. Seventeen percent of the first-generation college undergraduates received state aid compared with 11 percent of those undergraduates who had at least one parent who was a college graduate.

Fifteen percent of the black, non-Hispanic undergraduates received state aid compared with 11 percent of the white, non-Hispanic undergraduates. Neither Hispanic (11 percent) nor American Indian/Alaskan Native (14 percent) undergraduates differed significantly from white, non-Hispanic undergraduates in their chances of receiving state aid.

Age and marital status were related to the receipt of state student financial aid. Twelve percent of the undergraduates who were not married received state aid compared with 7 percent of those who were married. Fourteen percent of the undergraduates 23 or younger received state aid compared with 10 percent of those undergraduates in the 24 to 30 and 31 to 39 age categories.

Undergraduates who attended an institution in their state of legal residence were more likely to receive state aid than were those who attended out of their home state. Thirteen percent of those attending an institution in their home state received state student financial aid compared with 3 percent of those who attended out of state. Again, this finding is consistent with the NASSGAP report.

AVERAGE STATE STUDENT FINANCIAL AID AWARD

Table 4 also provides detailed information about the average amount of state aid awarded to undergraduate state aid recipients. On average, state financial aid award beneficiaries received $1,647 in 1995-96. State aid recipients who attended public less-than-4-year institutions received an average award of $873. This was less aid than recipients in other types of public and private institutions received. Undergraduates in public 4-year institutions received an average state aid award of $1,685 and undergraduates in private, not-for-profit, 4-year institutions received $2,079. Undergraduates in private, not-for-profit, 2-year or less institutions received $2,490. Those in private, for profit, 2-year or more institutions received $2,178. Those students in private, for profit, less-than-2-year institutions received $3,214.

Dependency, number of dependents, and marital status were also related to the average award received. Dependent undergraduates received an average state aid award of $1,793. That was larger than the $1,454 received by independent undergraduates. Independent undergraduates with no dependents received an average state aid award of $1,763, which was larger than the $1,315 received by those with one or more dependents. Undergraduates who were not married received an average state aid award of $1,702. This was larger than the $1,463 received by married undergraduates or the $1,064 received by those who were separated from their spouse. Smaller awards may reflect any combination of events such as attending a lower tuition institution, attending part-time or having more resources available to pay the price of attending a postsecondary institution.

Dependent undergraduates with family incomes less than $20,000 received larger average state aid awards than dependent undergraduates with family incomes between $40,000 and $59,999 and $60,000 and $79,999. The average state student financial aid award received by dependent undergraduates from families with incomes below $20,000 was $1,907. Dependent undergraduates from families with incomes between $40,000 and $59,999 received an average state award of $1,564 and those from families with incomes between $60,000 and $79,999 received $1,516.

Asian/Pacific Islander state financial aid recipients received an average state award of $2,423. This was more than the average received by white, non-Hispanic, black, non-Hispanic, or Hispanic state aid recipients. This was the only significant difference in average aid by race or ethnicity.

This overview does not identify the diversity in purpose or amount of state student financial aid among states. National averages provide some clues about who was likely to receive state student financial aid and if they received it, what their average award was likely to be. The results are consistent with the premise that undergraduates in private, not-for-profit, 4-year institutions were more likely to have received state financial aid than were those in public institutions. State aid helps reduce tuition paid by undergraduates attending private, not-for-profit institutions in the state. The fact that lower income undergraduates were more likely to receive state student financial aid is consistent with the premise that states award student financial aid with consideration for need.

Table 4—Percentage of undergraduates who received state aid and average state aid amount awarded, by selected characteristics: 1996

	Received state aid	Average state aid award
Total	11.5	$1,647
State aid group		
High state aid group	21.7	1,933
Middle state aid group	9.1	1,451
Low state aid group	3.8	1,320
Institution type		
Public 4-year	14.2	1,685
Public less-than-4-year	6.3	873
Private, not-for-profit, 4-year	22.2	2,079
Private, not-for-profit, 2-year or less	14.5	2,490
Private, for-profit, 2-year or more	13.5	2,178
Private, for-profit, less-than-2-year	7.7	3,214
Tuition and fees for terms attended		
Less than $1,000	3.3	631
$1,000-$2,499	14.4	1,125
$2,500-$4,999	21.2	1,903
$5,000-$9,999	19.6	2,233
$10,000 or more	25.0	2,414
Gender		
Male	10.0	1,726
Female	12.5	1,599
Dependency status		
Dependent	13.3	1,793
Independent	9.7	1,454

Table 4—Percentage of undergraduates who received state aid and average state aid amount awarded, by selected characteristics: 1996--Continued

	Received state aid	Average state aid award
Marital status		
Not married	12.4	1,702
Married	7.1	1,463
Separated	22.0	1,064
Age		
23 or younger	13.7	1,740
24-30	9.7	1,375
31-39	9.7	1,456
40 or older	6.3	1,742
Number of dependents, independent student		
Student had one or more dependents	12.1	1,315
Student did not have dependents	11.3	1,763
Race/ethnicity of student		
White, non-Hispanic	10.9	1,616
Black, non-Hispanic	15.2	1,458
Hispanic	11.2	1,621
Asian/Pacific Islander	11.6	2,423
American Indian/Alaskan Native	13.6	2,030
Other	6.6	2,637
Income, dependent student		
Less than $20,000	23.0	1,907
$20,000-$39,999	19.3	1,897
$40,000-$59,999	12.1	1,564
$60,000-$79,999	6.6	1,516
$80,000 or more	3.5	1,758
Income, independent student		
Less than $5,000	19.2	1,476
$5,000-$9,999	16.4	1,476
$10,000-$19,999	10.3	1,313
$20,000 or more	4.5	1,553
Undergraduate level		
First year/freshman	10.3	1,706
Second year/sophomore	11.6	1,558
Third year/junior	16.0	1,902
Fourth year or more/senior	14.5	1,819
Student attended institution in state of legal residence		
Student attended institution in state of legal residence	12.6	1,640
Student did not attend institution in state of legal residence	3.4	1,848

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Table 4—Percentage of undergraduates who received state aid and average state aid amount awarded, by selected characteristics: 1996--Continued

	Received state aid	Average state aid award
First-generation student		
Student was first-generation	17.4	1,628
Student was not first-generation	10.6	1,761
Attendance intensity		
Full-time	16.8	1,785
Part-time	5.8	1,193
Grade point average		
Less than 2.00	9.0	1,333
2.00-3.49	13.4	1,640
3.50 or higher	10.7	1,748

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

DIFFERENCES BETWEEN THE HIGH AND LOW STATE AID GROUPS

Reporting national averages conceals the differences among states. Variations exist among states in the amount of student financial aid they award and the rules they use to distribute it. According to NASSGAP, California, Illinois, New Jersey, New York, and Pennsylvania awarded over $1.5 billion in 1995, which represented 60 percent of the nation's state aid dollars. The seven smallest programs combined awarded $5.5 million.[25] A few states can have a considerable effect on the national average. As noted earlier, states vary from almost $1,000 in state aid per undergraduate to less than $4.

The amount of aid awarded and the goals of state student financial aid programs are only two types of policy differences among states. States also vary in the tuition charged in public institutions, percentage of undergraduates enrolled in private, not-for-profit institutions, and the percentage enrolled in public community colleges. Student financial aid is one aspect of a complicated set of relationships that defines the educational options available to undergraduates in a state.

Twenty-two percent of the undergraduates in the high state aid group received state student financial aid (table 5). That was a higher probability of receiving state aid than the 4 percent reported by undergraduates attending postsecondary institutions in the low state aid group. Undergraduates attending institutions in the high state aid group who received a state award, received an average of $1,933 that was larger than the $1,320 received by those in the low state aid group. These results confirm that the state groupings based on the NASSGAP data represent states with high and low use of state student financial aid.

Comparing the mean state financial aid award amount across all undergraduates in table 5 (last column) demonstrates the differences in the award amount of state aid between the two state groups. Mean state aid was calculated by dividing the total aid awarded by all the undergraduates, regardless of whether they received aid or not. More state aid dollars were awarded per undergraduate attending institutions in the high state aid group than for those in the low state aid group. This resulted from a combination of a larger percentage of undergraduates

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[25]National Association of State Student Grant and Aid Programs. *27th Annual Survey Report,1995-96 Academic Year*. (Albany, NY: New York Higher Education Services Corporation, 1997).

receiving state student financial aid and a larger average award in the high state aid group compared with those attending in the low state aid group.

Table 5—Percentage of undergraduates in the low and high state aid groups who received state aid, and average state aid award to state aid recipients and to all undergraduates, by state aid group: 1996

	Percentage receiving state aid	Average state aid award, state aid recipients	Mean state aid award, all undergraduates
Total	11.5	$1,647	$269
State aid group			
High state aid group	21.7	1,933	420
Low state aid group	3.8	1,320	50

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Undergraduates attending institutions in the high state aid group were charged a higher average tuition than were those in the low state aid group (table 6). Undergraduates attending institutions in the high state aid group were charged average tuition and fees of $4,334 compared with $2,099 for those in the low state aid group. This suggests that the high state aid group was also a high average tuition group. On average, undergraduates attending public 4-year, public less-than-4-year, and private, not-for-profit, 4-year institutions were charged a higher tuition if they attended an institution in the high state aid group compared with the low state aid group. These figures were, for public 4-year institutions, $3,415 compared with $2,622; for public less-than-4-year institutions, $921 compared with $498; and for private, not-for-profit, 4-year institutions, $10,199 compared with $5,830.

Table 6—Average tuition and fees charged for undergraduates in the low and high state aid groups, by institutional type: 1996

	Low state aid group	High state aid group
Total	$2,099	$4,334
Institution type		
Public 4-year	2,622	3,415
Public less-than-4-year	498	921
Private, not-for-profit, 4-year	5,830	10,199
Private, not-for-profit, 2-year or less	2,308	4,032
Private, for-profit, 2-year or more	5,041	5,345
Private, for profit, less-than-2-year	5,599	6,804

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Dependent undergraduates at each income level were charged a higher average tuition in the high state aid group than were those in the low state aid group (table 7). Dependent undergraduates with family incomes less than $20,000 were charged $2,840 if they attended institutions in the low state aid group compared with $5,712 charged those who attended in the high state aid group. The difference in tuition charged was significant for undergraduates in all of the remaining dependent income groups. Dependent undergraduates from low-state aid states with family income of $20,000-$39,999 were charged $2,283, compared with $5,545 for dependent undergraduates in the high state aid states. For dependent undergraduates with family income of $40,000-$59,999, those in the low state aid group were charged $2,547 compared with $5,369. Dependent undergraduates with family income of $60,000-79,999 were charged $3,055 in the low state aid states, compared with $5,492 in the high state aid group, and those with family income of $80,000 or more were charged $3,972 in the low state aid states, compared with $7,357.

Table 7—Average tuition and fees charged for undergraduates in the low and high state aid groups, by state aid group and income level: 1996

	Low state aid group	High state aid group
Total	$2,099	$4,334
	Dependent student	
Income		
Less than $20,000	2,840	5,712
$20,000-$39,999	2,283	5,545
$40,000-$59,999	2,547	5,369
$60,000-$79,999	3,055	5,492
$80,000 or more	3,972	7,357
	Independent student	
Income		
Less than $5,000	2,250	3,490
$5,000-$9,999	1,707	3,043
$10,000-$19,999	1,450	2,614
$20,000 or more	1,122	1,865

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

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Compared with undergraduates in the low state aid group, table 8 shows that those in the high state aid group were more likely to receive financial aid (48 percent compared with 57 percent). The difference in the chance of receiving aid extends to those who received federal aid (32 percent compared with 42 percent), grant aid (38 percent compared with 45 percent), loans (22 percent compared with 33 percent), and work-study (3 percent compared with 7 percent).

Table 8—Percentage distribution[1] of undergraduates in the low and high state aid groups according to type and source of aid, by state aid group: 1996

	Low state aid group	High state aid group
Total	100.0	100.0
Total aid		
Did receive aid	47.5	57.2
Did not receive aid	52.5	42.8
State aid		
Did receive state aid	3.8	21.7
Did not receive state aid	96.2	78.3
Federal aid (except VA/DOD)[2]		
Did receive federal aid	32.1	42.1
Did not receive federal aid	67.9	57.9
Institutional aid		
Did receive institutional aid	13.9	17.4
Did not receive institutional aid	86.1	82.6
Employer aid		
Did receive employer aid	6.5	6.5
Did not receive employer aid	93.5	93.5
Other source (including VA/DOD)[2]		
Did receive other source	13.3	13.1
Did not receive other source	86.7	86.9
Grant aid		
Did receive grant aid	37.5	45.1
Did not receive grant aid	62.5	54.9
Loan (except PLUS)		
Did receive loan	22.0	32.8
Did not receive loan	78.0	67.2

Table 8—Percentage distribution[1] of undergraduates in the low and high state aid groups according to type and source of aid, by state aid group: 1996--Continued

	Low state aid group	High state aid group
Work-study		
Did receive work-study	2.7	7.1
Did not receive work-study	97.3	92.9
Other type of aid (including assistantships & PLUS)		
Did receive other type of aid	6.3	8.5
Did not receive other type of aid	93.7	91.5

[1]The columns sum to 100 vertically for each selected characteristic.
[2]Veterans Administration/Department of Defense.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Table 9 shows that the average award amount for every source of aid was larger for recipients attending institutions in the high state aid group compared with those in the low state aid group. The average financial aid award was $5,810 for those in the high state aid group compared with $3,869 in the low state aid group. Undergraduates in the high state aid group received larger average awards from state sources, institutional sources, employers, and the federal government.

Table 9—Average total, state, institutional, employer, federal and other aid source amounts awarded to undergraduates in the low and high state aid groups, by state aid group: 1996

	Total aid	State aid	Institutional aid	Employer aid	Federal aid	Other source of aid
Total	$4,926	$1,647	$2,928	$1,276	$4,430	$1,640
State aid group						
High state aid group	5,810	1,933	4,004	1,595	4,713	1,710
Low state aid group	3,869	1,320	1,752	1,019	4,167	1,541

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Table 10 shows that undergraduates in the high state aid group received an average grant of $3,383 compared with $1,856 received by those in the low state aid group. The average loan or work-study award amount did not differ significantly between the low and high state aid groups.

Table 10—Average total aid, grant aid, work-study, loan and other aid type amounts awarded to undergraduates in the low and high state aid groups, by state aid group: 1996

	Total aid	Grant aid	Work-study	Loan	Other type of aid
Total	$4,926	$2,716	$1,397	$4,074	$3,692
State aid group					
High state aid group	5,810	3,383	1,346	4,060	4,370
Low state aid group	3,869	1,856	1,497	4,075	3,261

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

The net tuition paid by undergraduates in the high state aid group was higher than that paid by those in the low state aid group (table 11). Net tuition was defined as the average tuition paid after all grants have been subtracted. The net tuition paid by undergraduates in the high state aid group was $2,947 compared with $1,553 paid by those in the low state aid group.

Table 11—Average price of attendance for undergraduates in the low and high state aid groups, by state aid group: 1996

	Low state aid group	High state aid group
Price of attendance		
Tuition and fees	$2,099	$4,334
Tuition and fees minus state aid*	2,052	3,918
Tuition and fees minus state aid minus institutional aid	1,831	3,232
Tuition and fees minus all grants, regardless of source*	1,553	2,947

*Some state aid received may not be in the form of a grant.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

The net tuition paid by undergraduates in the high state aid group was significantly larger for three of the six institutional types (table 12). Undergraduates attending public less-than-4-year institutions paid tuition of $639 in the high state aid group compared with $316 in the low state aid group. Those attending private, not-for-profit, 4-year institutions in the high state aid group paid tuition of $6,552 compared with $4,171 in the low state aid group. Undergraduates in private, not-for-profit, 2-year or less institutions paid $2,269 in the high state aid group and $1,170 in the low state aid group. Net tuition was not significantly different for those attending public 4-year institutions in the high and low state aid groups ($2,470 and $1,989), private, for-

profit, 2-year-or-more ($4,167 and $4,154), and private, for-profit, less-than-2-year institutions ($5,281 and $4,518).

Table 12—Average net tuition for undergraduates in the low and high state aid groups, by institutional type: 1996

	Low state aid group	High state aid group
Total	$1,553	$2,947
Institution type		
Public 4-year	1,989	2,470
Public less-than-4-year	316	639
Private, not-for-profit, 4-year	4,171	6,552
Private, not-for-profit, 2-year or less	1,170	2,269
Private, for-profit, 2-year or more	4,154	4,167
Private, for profit, less-than-2-year	4,518	5,281

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

The average net tuition paid by dependent undergraduates attending institutions in the high state aid group was higher than that paid by those attending in the low state aid group at each income level (table 13). The net tuition paid by those with incomes below $20,000 was $2,648 in the high state aid group and $1,616 in the low state aid group. For those with incomes between $20,000 and $39,999, the net tuition was $2,929 in the high state aid group and $1,498 in the low state aid group. Dependent undergraduates with incomes between $40,000 and $59,999 paid a net tuition of $3,709 in the high state aid group and $2,016 in the low state aid group. The net tuition paid by those with incomes between $60,000 and $79,999 was $4,414 for those in the high state aid group and $2,617 in the low state aid group. Finally, dependent undergraduates with incomes of $80,000 or more paid $6,558 in the high state aid group and $3,656 in the low state aid group.

Table 13—Average net tuition for undergraduates in the low and high state aid groups, by state aid group and income level: 1996

	Low state aid group	High state aid group
Total	$1,553	$2,947
	Dependent student	
Income		
Less than $20,000	1,616	2,648
$20,000-$39,999	1,498	2,929
$40,000-$59,999	2,016	3,709
$60,000-$79,999	2,617	4,414
$80,000 or more	3,656	6,558
	Independent student	
Income		
Less than $5,000	1,281	1,716
$5,000-$9,999	1,148	1,705
$10,000-$19,999	966	1,746
$20,000 or more	877	1,402

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Nine percent of the undergraduates in the low state aid group enrolled in private, not-for-profit, 4-year institutions compared with 23 percent of those in the high state aid group (table 14). Thirty-five percent of the undergraduates in the high state aid group attended public less-than-4-year institutions compared with 47 percent of those in the low state aid group. Undergraduates in the high state aid group were also more likely to attend private, for-profit, 2-year or more institutions than were those in the low state aid group. They represented 6 percent of the undergraduates in the high state aid group and 3 percent in the low state aid group. No significant difference existed in the chances of attending a public 4-year institution.

Variation in the net tuition paid by undergraduates attending institutions in the high and low state aid groups may be explained in part by the difference in enrollment by institutional type and control. On average, the tuition paid by undergraduates in private, not-for-profit, 4-year institutions was higher than that paid by undergraduates in either public 4-year or public less-than-4-year institutions.[26] The categories of institutional control that might account for the

[26]U.S. Department of Education, NCES, IPEDS "Fall Enrollment and Institutional Characteristics Survey" (table prepared October 1997), generated on the website at http://NCES.ed.gov.

difference in tuition paid by undergraduates attending institutions in the two groups of states were the private, not-for-profit, 4-year institutions and public less-than-4-year institutions.

Table 14—Percentage distribution* of undergraduates in the low and high state aid groups according to institutional type, by state aid group: 1996

	Low state aid group	High state aid group
Total	100.0	100.0
Institution type		
Public 4-year	36.9	33.2
Public less-than-4-year	46.9	34.6
Private, not-for-profit, 4-year	9.3	22.8
Private, not-for-profit, 2-year or less	0.9	1.5
Private, for-profit, 2-year or more	2.6	5.6
Private, for-profit, less-than-2-year	3.5	2.4

*The columns sum to 100 vertically for each selected characteristic.

NOTE: Detail may not sum to total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

On average, undergraduates attending institutions in the high state aid group were younger and more likely to be dependent than were those attending institutions in the low state aid group (table 15). Sixty percent of the undergraduates attending institutions in the high state aid group were 23 years old or younger compared with 54 percent of those in the low state aid group. At the other end of the age spectrum, 10 percent of the undergraduates enrolled in the high state aid group were at least 40 years of age compared with 13 percent of those in the low state aid group. Fifty-five percent of the undergraduates enrolled in the high state aid group were dependent compared with 47 percent of those in the low state aid group.

Undergraduates attending institutions in the high state aid group were more likely to be single and have no dependents compared with those attending institutions in the low state aid group. Eighty-two percent of the undergraduates attending institutions in the high state aid group were not married compared with 74 percent of those in the low state aid group. Twenty-one percent of the undergraduates attending institutions in the high state aid group had dependents compared with 27 percent of those in the low state aid group.

These differences in age, dependency status and marital status of enrolled undergraduates are consistent with the fact that a larger percentage of undergraduates in the high state aid group

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enrolled in private, not-for-profit, 4-year institutions and a smaller percentage in public less-than-4-year institutions compared with the low state aid group.[27] These enrollment differences may also account for the fact that 57 percent of the undergraduates in the high state aid group attended full-time compared with 51 percent in the low state aid group.

The distribution of undergraduates by other characteristics did not suggest a consistent difference between state aid groups. The percentage of dependent undergraduates with incomes below $20,000 was not significantly different in the high or low state aid group (17 percent and 18 percent). The percentage of the enrolled undergraduates that were first-generation college undergraduates was greater in the high state aid group (54 percent) than in the low state aid group (48 percent). Finally, there was no significant difference in the number of white, non-Hispanic undergraduates in the high and low state aid group (73 percent in both state aid groups). Minority enrollment did not differ between the two state aid groups, although the composition of the minority population may reflect regional differences.

[27]Berkner, Lutz. *Student Financing of Undergraduate Education: 1995-96*. NCES 98-076. (U.S. Department of Education. Washington D.C., 1998)

Table 15—Percentage distribution* of undergraduates in the low and high state aid groups according to selected student characteristics, by state aid group: 1996

	Low state aid group	High state aid group
Total	100.0	100.0
Gender		
Male	43.5	43.1
Female	56.5	56.9
Dependency level		
Dependent	47.4	55.0
Independent	52.6	45.0
Marital status		
Not married	73.8	81.5
Married	24.4	16.6
Separated	1.8	1.9
Age		
23 or younger	53.8	60.0
24-30	19.9	17.4
31-39	13.1	13.1
40 or older	13.2	9.5
Race/ethnicity of student		
White, non-Hispanic	73.0	73.0
Black, non-Hispanic	9.9	14.4
Hispanic	10.8	6.5
Asian/Pacific Islander	4.0	5.0
American Indian/Alaskan Native	2.0	0.5
Other	0.3	0.6
Number of dependents, independent student		
Student had one or more dependents	27.1	21.4
Student did not have dependents	72.9	78.6
Income, dependent student		
Less than $20,000	17.6	16.6
$20,000-$39,999	26.3	21.6
$40,000-$59,999	23.7	23.1
$60,000-$79,999	15.1	18.1
$80,000 or more	17.3	20.6
Income, independent student		
Less than $5,000	13.5	16.0
$5,000-$9,999	14.2	14.0
$10,000-$19,999	23.4	20.8
$20,000 or more	48.9	49.2

Table 15—Percentage distribution* of undergraduates in the low and high state aid groups according to selected student characteristics, by state aid group: 1996--Continued

	Low state aid group	High state aid group
Undergraduate level		
First year/freshman	54.3	48.2
Second year/sophomore	21.4	23.3
Third year/junior	11.0	13.6
Fourth year or more/senior	13.3	14.9
Student attended institution in state of legal residence		
Student attended institution in state of legal residence	86.2	86.0
Student did not attend institution in state of legal residence	13.8	14.0
First-generation student		
Student was first-generation	47.6	53.8
Student was not first-generation	52.4	46.2
Attendance intensity		
Full-time	51.0	56.9
Part-time	49.0	43.1
Grade point average		
Less than 2.00	16.5	16.8
2.00-3.49	60.2	61.6
3.50 or higher	23.3	21.6

*The columns sum to 100 vertically for each selected characteristic.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Variation in the share of undergraduates attending each institutional type in the high and low state aid groups may also account for differences in the award of student financial aid. Information about undergraduates in each of the three major types of institutions is reported separately in later sections of this report. These comparisons help identify whether the results noted in the previous section continue to exist when enrollment is reported by institutional type and control.

UNDERGRADUATES ATTENDING PUBLIC 4-YEAR INSTITUTIONS

Undergraduates attending public 4-year institutions in the low state aid group were charged lower tuition on average than were those in the high state aid group (table 16). Undergraduates attending public 4-year institutions in the low state aid group were charged $2,622 average tuition and fees compared with $3,415 for those in the high state aid group.

Table 16—Average tuition and fees charged for undergraduates in the low and high state aid groups attending public 4-year institutions, by state aid group and income level: 1996

	Low state aid group	High state aid group
Total	$2,622	$3,415
	Dependent student	
Income		
Less than $20,000	2,988	3,865
$20,000-$39,999	2,899	3,938
$40,000-$59,999	2,977	3,722
$60,000-$79,999	3,398	3,982
$80,000 or more	4,422	4,740
	Independent student	
Income		
Less than $5,000	2,230	2,764
$5,000-$9,999	2,267	2,773
$10,000-$19,999	1,496	2,196
$20,000 or more	1,312	1,634

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Undergraduates attending public 4-year institutions in the low state aid group were more likely to be independent, married or have dependents compared with those attending institutions in the high state aid group. Forty-two percent of the undergraduates attending public 4-year institutions in the low state aid group were independent compared with 34 percent in the high state aid group (table 17). Those in the low state aid group were also more likely to be married, 18 percent compared with 13 percent. Those attending public 4-year institutions in the low state aid group were also more likely to have a dependent of their own, 17 percent compared with 13 percent in the high state aid group. Undergraduates in the high state aid group were more likely to be younger. Seventy percent of those in the high state aid group were less than 24 years old compared with 63 percent in the low state aid group.

Twenty percent of the independent undergraduates attending public 4-year institutions in the high state aid group had incomes less than $5,000 compared with 14 percent of those in the low state aid group. Twenty percent of the independent undergraduates in the high state aid group had incomes between $10,000 and $19,999 compared with 25 percent of those in the low state aid group. No significant difference existed in the percentage of dependent undergraduates

with incomes of less than $20,000 in the high and low state aid groups. (16 percent and 17 percent respectively).

Undergraduates attending public 4-year institutions in the high state aid group were more likely to be first-generation college undergraduates than were those attending in the low state aid group. Fifty percent of the undergraduates in the high state aid group were first-generation college undergraduates compared with 40 percent of those in the low state aid group. It is not possible to determine if this difference reflects the effect of state student financial aid or population differences within the two groups of states. Several possible factors may explain this outcome. First, regional differences may exist in the population served. Second, some public 4-year institutions in the high state aid group may provide open door admission to compensate for the lack of public less-than-4-year institutions in the state. Third, state student aid policy may target these undergraduates in some of the high aid states.

Undergraduates attending public 4-year institutions in the high state aid group were more likely to receive student financial aid than those in the low state aid group, 59 percent compared with 52 percent (table 18). One quarter of the undergraduates attending public 4-year institutions in the high state aid group received state aid compared with 4 percent in the low state aid group. They were also more likely to receive federal aid. Forty-seven percent of the undergraduates attending public 4-year institutions in the high state aid group received federal aid compared with 38 percent in the low state aid group.

Sixteen percent of the public 4-year undergraduates in the low state aid group received institutional aid compared with 11 percent in the high state aid group. This suggests that some states in the low state aid group may support tuition remission programs in public institutions instead of funding state student financial aid programs.

Table 17—Percentage distribution* of undergraduates in the low and high state aid groups attending public 4-year institutions according to selected student characteristics, by state aid group: 1996

	Low state aid group	High state aid group
Total	100.0	100.0
Gender		
Male	46.9	44.1
Female	53.1	55.9
Dependency level		
Dependent	58.0	66.4
Independent	42.0	33.6
Marital status		
Not married	80.9	86.4
Married	18.3	12.7
Separated	0.7	0.9
Age		
23 or younger	63.0	70.2
24-30	20.1	15.7
31-39	9.4	7.8
40 or older	7.6	6.3
Race/ethnicity of student		
White, non-Hispanic	78.5	76.2
Black, non-Hispanic	6.8	10.9
Hispanic	8.3	5.5
Asian/Pacific Islander	4.7	6.2
American Indian/Alaskan Native	1.4	0.5
Other	0.4	0.7
Number of dependents, independent student		
Student had one or more dependents	16.5	12.7
Student did not have dependents	83.5	87.3
Income, dependent student		
Less than $20,000	16.7	15.6
$20,000-$39,999	21.6	21.1
$40,000-$59,999	23.9	22.7
$60,000-$79,999	16.6	19.2
$80,000 or more	21.3	21.4
Income, independent student		
Less than $5,000	13.9	20.2
$5,000-$9,999	15.2	15.8
$10,000-$19,999	24.8	19.6
$20,000 or more	46.1	44.5

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Table 17—Percentage distribution* of undergraduates in the low and high state aid groups attending public 4-year institutions according to selected student characteristics, by state aid group: 1996--Continued

	Low state aid group	High state aid group
Undergraduate level		
First year/freshman	30.5	29.7
Second year/sophomore	17.0	20.3
Third year/junior	23.5	23.9
Fourth year or more/senior	29.0	26.1
Student attended institution in state of legal residence		
Student attended institution in state of legal residence	86.0	90.2
Student did not attend institution in state of legal residence	14.0	9.8
First-generation student		
Student was first-generation	39.8	50.4
Student was not first-generation	60.2	49.6
Attendance intensity		
Full-time	60.7	65.4
Part-time	39.3	34.6
Grade point average		
Less than 2.00	13.2	15.4
2.00-3.49	68.4	66.6
3.50 or higher	18.4	18.0

*The columns sum to 100 vertically for each selected characteristic.

NOTE: Detail may not sum to total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Undergraduates in public 4-year institutions in the high state aid group were more likely to have received a loan than were those in the low state aid group. The difference was 39 percent compared with 33 percent. Undergraduates in the high state aid group were also more likely to receive a grant than were those in the low state aid group. Forty-three percent of undergraduates in public 4-year institutions in the high state aid group received a grant compared with 38 percent in the low state aid group.

These results suggest that undergraduates attending public 4-year institutions in the high state aid group paid a higher average tuition and received more aid than those in the low state aid group. One important result was that they were more likely to have received federal financial aid than those in the low state aid group.

Table 18—Percentage distribution[1] of undergraduates in the low and high state aid groups attending public 4-year institutions according to type and source of aid, by state aid group: 1996

	Low state aid group	High state aid group
Total	100.0	100.0
Total aid		
Did receive aid	52.3	59.2
Did not receive aid	47.7	40.8
State aid		
Did receive state aid	4.3	24.8
Did not receive state aid	95.7	75.2
Federal aid (except VA/DOD)[2]		
Did receive federal aid	38.4	47.4
Did not receive federal aid	61.6	52.6
Institutional aid		
Did receive institutional aid	16.0	11.0
Did not receive institutional aid	84.0	89.0
Employer aid		
Did receive employer aid	5.2	4.2
Did not receive employer aid	94.8	95.8
Other source (including VA/DOD)[2]		
Did receive other source	14.0	11.7
Did not receive other source	86.0	88.3
Grant aid		
Did receive grant aid	38.2	43.2
Did not receive grant aid	61.8	56.8
Loan (except PLUS)		
Did receive loan	32.9	39.0
Did not receive loan	67.1	61.0
Work-study		
Did receive work-study	4.1	6.2
Did not receive work-study	95.9	93.8
Other type of aid (including assistantships & PLUS)		
Did receive other type of aid	7.1	8.8
Did not receive other type of aid	92.9	91.2

[1]The columns sum to 100 vertically for each selected characteristic.
[2]Veterans Administration/Department of Defense.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Undergraduates attending public 4-year institutions in the high state aid group received $1,888 in state aid compared with $1,233 received by those in the low state aid group (table 19). Those in the high state aid group also received larger grant awards than those in the low state aid group, $2,644 compared with $2,046 (table 20). However, undergraduates in public 4-year institutions in the low state aid group received larger average loans, $4,254 compared with $3,913 received by those in the high state aid group. The total aid amount received by undergraduates attending public 4-year institutions was not significantly different between the high and low state aid groups.

Table 19—Average total, state, institutional, employer, federal and other aid source amounts awarded to undergraduates in the low and high state aid groups attending public 4-year institutions, by state aid group: 1996

	Total aid	State aid	Institutional aid	Employer aid	Federal aid	Other source of aid
Total	$5,071	$1,812	$2,137	$1,181	$4,750	$1,678
State aid group						
High state aid group	5,259	1,888	2,334	1,308	4,600	1,779
Low state aid group	4,793	1,233	1,960	1,046	4,992	1,567

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Table 20—Average total aid, grant aid, work-study, loan and other aid type amounts awarded to undergraduates in the low and high state aid groups attending public 4-year institutions, by state aid group: 1996

	Total aid	Grant aid	Work-study	Loan	Other type of aid
Total	$5,071	$2,401	$1,381	$4,047	$3,990
State aid group					
High state aid group	5,259	2,644	1,287	3,913	4,187
Low state aid group	4,793	2,046	1,567	4,254	3,671

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Table 21 shows that undergraduates attending public 4-year institutions in the high state aid group were charged an average tuition of $3,415, which was higher than the $2,622 charged to those attending institutions in the low state aid group. This difference in tuition cannot be attributed to the percentage of undergraduates attending part-time; there was no significant difference between the percentages of undergraduates in the high and low state aid groups who attended part-time (table 3).

After subtracting state aid from the tuition, the remaining difference in tuition, $2,574 in the low aid states and $2,952 in the high aid states, was no longer significant. The tuition differences between those attending public 4-year institutions in the high and low state aid groups, $2,292 and $2,740, were not significant after further subtracting institutional aid from tuition. Subtracting all grant assistance from tuition resulted in an average net tuition of $1,989 for those attending public 4-year institutions in the low state aid group and $2,470 for those in the high state aid group. This difference was also not statistically significant. Student grant assistance helped equalize tuition between undergraduates attending public 4-year institutions in high and low state aid groups.

Table 21—Average price of attendance for undergraduates in the low and high state aid groups attending public 4-year institutions, by state aid group: 1996

	Low state aid group	High state aid group
Price of attendance		
Tuition and fees	$2,622	$3,415
Tuition and fees minus state aid*	2,574	2,952
Tuition and fees minus state aid minus institutional aid	2,292	2,740
Tuition and fees minus all grants, regardless of source*	1,989	2,470

*Some state aid received may not be in the form of a grant.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Undergraduates attending public 4-year institutions in the high state aid group paid an average net tuition that was not significantly different from that paid by those in the low state aid group in all except one of the income categories (table 22). The only significant difference was between dependent undergraduates with family incomes between $40,000 and $59,999 who attended public 4-year institutions in the high and low state aid groups. Those in the high state aid group paid net tuition of $3,072 compared with $2,422 in the low state aid group.

Table 22—Average net tuition for undergraduates in the low and high state aid groups attending public 4-year institutions, by state aid group and income level: 1996

	Low state aid group	High state aid group
Total	$1,989	$2,470
	Dependent student	
Income		
Less than $20,000	1,723	1,409
$20,000-$39,999	1,864	2,326
$40,000-$59,999	2,422	3,072
$60,000-$79,999	2,989	3,539
$80,000 or more	4,111	4,440
	Independent student	
Income		
Less than $5,000	989	1,079
$5,000-$9,999	1,484	1,587
$10,000-$19,999	956	1,329
$20,000 or more	1,052	1,325

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

UNDERGRADUATES ATTENDING PRIVATE, NOT-FOR-PROFIT, 4-YEAR INSTITUTIONS

In both public 4-year and public less-than-4-year institutions, no significant difference existed in the share of undergraduates enrolled part-time between the high and low state aid groups. That was not the case in private, not-for-profit, 4-year institutions. Undergraduates attending private, not-for-profit, 4-year institutions in the low state aid group were more likely to attend full time than were those in the high state aid group. In the low state aid group, 42 percent of the undergraduates attended part-time compared with 26 percent in the high state aid group (table 23). For this reason, only full-time undergraduates were included in tables 24 to 29.[28]

[28]As a result, the tables in this section are not directly comparable to tables for public 4-year and public less-than-4-year institutions, since those tables include both full-time and part-time undergraduates.

Table 23—Percentage distribution* of undergraduates in the low and high state aid groups attending private, not-for-profit, 4-year institutions according to attendance intensity, by state aid group: 1996

	Low state aid group	High state aid group
Total	100.0	100.0
Attendance intensity		
Full-time	57.9	73.7
Part-time	42.1	26.3

*The columns sum to 100 vertically for each selected characteristic.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Full-time undergraduates enrolled in private, not-for-profit, 4-year institutions in the high state aid group were charged higher tuition than were those in the low state aid group (table 24). Full-time undergraduates attending private, not-for-profit, 4-year institutions in the low state aid group were charged average tuition and fees of $8,403 compared with $12,417 for those in the high state aid group.

Dependent undergraduates in each income category were charged a higher average tuition if they attended an institution in the high state aid group compared with those in the low state aid group. Dependent undergraduates with a family income less than $20,000 were charged a tuition of $9,048 in the low state aid group and $13,116 in the high state aid group. The difference was also significant for the tuition charged dependent undergraduates with income between $20,000 and $39,999, which was $8,851 in the low state aid group and $12,317 in the high state aid group. The tuition difference was significant for each of the remaining income categories. Those attending in the high state aid group paid a higher tuition than those in the low state aid group.

Table 24—Average tuition and fees charged for full-time undergraduates in the low and high state aid groups attending private, not-for-profit, 4-year institutions, by state aid group and income level: 1996

	Low state aid group	High state aid group
Total	$8,403	$12,417
	Dependent student	
Income		
Less than $20,000	9,048	13,116
$20,000-$39,999	8,851	12,317
$40,000-$59,999	7,805	13,029
$60,000-$79,999	9,573	13,307
$80,000 or more	10,310	14,290
	Independent student	
Income		
Less than $5,000	8,041	9,312
$5,000-$9,999	--	9,719
$10,000-$19,999	4,252	8,733
$20,000 or more	7,510	7,462

--Sample size too small for a reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Full-time undergraduates attending private, not-for-profit, 4-year institutions in the high state aid group differed from those in the low state aid group in at least one way. Those in the low state aid group were more likely to be married than those in the high state aid group. Thirteen percent of those in the low state aid group were married compared with 6 percent in the high state aid group (table 25).

The portion of full-time dependent undergraduates with incomes less than $20,000 attending private, not-for-profit, 4-year institutions in the high state aid group did not differ significantly from that in the low state aid group. Nor did the percent of dependent undergraduates attending private, not-for-profit, 4-year institutions in the high state aid group with incomes of $80,000 or more differ significantly from the portion of those in the low state aid group. In addition, there was no significant difference between the low and high state aid groups for the other dependent income levels. State aid group did not have a significant relationship with the enrollment of full-time dependent undergraduates from each of the different income groups attending private, not-for-profit, 4-year institutions.

Table 25—Percentage distribution* of full-time undergraduates in the low and high state aid groups attending private, not-for-profit, 4-year institutions according to selected student characteristics, by state aid group: 1996

	Low state aid group	High state aid group
Total	100.0	100.0
Gender		
Male	38.8	42.5
Female	61.2	57.5
Dependency level		
Dependent	75.5	81.8
Independent	24.5	18.2
Marital status		
Not married	87.0	93.5
Married	12.5	5.9
Separated	0.5	0.7
Age		
23 or younger	81.5	84.7
24-30	10.9	8.4
31-39	4.2	4.6
40 or older	3.4	2.3
Race/ethnicity of student		
White, non-Hispanic	67.8	74.7
Black, non-Hispanic	14.5	12.1
Hispanic	9.5	4.6
Asian/Pacific Islander	6.9	7.5
American Indian/Alaskan Native	0.5	0.4
Other	0.8	0.8
Number of dependents, independent student		
Student had one or more dependents	9.6	7.7
Student did not have dependents	90.4	92.3
Income, dependent student		
Less than $20,000	17.2	15.1
$20,000-$39,999	20.6	21.4
$40,000-$59,999	24.8	21.1
$60,000-$79,999	14.8	16.2
$80,000 or more	22.6	26.3

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Table 25—Percentage distribution* of full-time undergraduates in the low and high state aid groups attending private, not-for-profit, 4-year institutions according to selected student characteristics, by state aid group: 1996--Continued

	Low state aid group	High state aid group
Income, independent student		
Less than $5,000	24.7	23.6
$5,000-$9,999	14.7	16.5
$10,000-$19,999	25.5	24.8
$20,000 or more	35.1	35.2
Undergraduate level		
First year/freshman	45.5	38.6
Second year/sophomore	17.4	23.5
Third year/junior	22.5	28.1
Fourth year or more/senior	14.6	9.9
Student attended institution in state of legal residence		
Student attended institution in state of legal residence	52.5	61.5
Student did not attend institution in state of legal residence	47.5	38.5
First-generation student		
Student was first-generation	32.8	40.9
Student was not first-generation	67.2	59.1
Grade point average		
Less than 2.00	5.0	8.1
2.00-3.49	70.2	69.1
3.50 or higher	24.8	22.8

*The columns sum to 100 vertically for each selected characteristic.

NOTE: Detail may not sum to total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Table 26 shows the receipt of different sources and types of aid. Overall, full-time undergraduates in private, not-for-profit, 4-year institutions in the high state aid group were not significantly more likely to have received financial aid than those in the low state aid group. However, full-time undergraduates attending private, not-for-profit, 4-year institutions in the high state aid group were more likely to have received state and institutional aid than those attending institutions in the low state aid group. Thirty-two percent of the undergraduates attending private, not-for-profit, 4-year institutions in the high state aid group received state aid compared with 18 percent of those in the low state aid group. Sixty-two percent of undergraduates in private, not-for-profit, 4-year institutions in the high state aid group received

institutional aid compared with 41 percent of those in the low state aid group. There was no significant difference in the receipt of federal aid for this group.

Full-time undergraduates in the high state aid group who attended private, not-for-profit, 4-year institutions were more likely to have received grants, loans, or work-study awards than those in the low state aid group. Seventy-three percent of the full-time undergraduates attending private, not-for-profit, 4-year institutions in the high state aid group received a grant compared with 61 percent of those attending in the low state aid group. Fifty-eight percent of those in the high state aid group received a loan compared with 45 percent of those in the low state aid group. Finally, one-quarter of the full-time undergraduates attending private, not-for-profit, 4-year institutions in the high state aid group received work-study compared with 13 percent of those in the low state aid group.

Table 26—Percentage distribution[1] of full-time undergraduates in the low and high state aid groups attending private, not-for-profit, 4-year institutions according to type and source of aid, by state aid group: 1996

	Low state aid group	High state aid group
Total	100.0	100.0
Total aid		
Did receive aid	72.9	81.1
Did not receive aid	27.1	18.9
State aid		
Did receive state aid	18.0	31.6
Did not receive state aid	82.0	68.4
Federal aid (except VA/DOD)[2]		
Did receive federal aid	52.2	62.8
Did not receive federal aid	47.8	37.2
Institutional aid		
Did receive institutional aid	41.4	62.2
Did not receive institutional aid	58.6	37.8
Employer aid		
Did receive employer aid	4.3	4.7
Did not receive employer aid	95.7	95.3
Other source (except VA/DOD)[2]		
Did receive other source	22.0	17.5
Did not receive other source	78.0	82.5
Grant aid		
Did receive grant aid	60.9	73.0
Did not receive grant aid	39.1	27.0

Table 26—Percentage distribution[1] of full-time undergraduates in the low and high state aid groups attending private, not-for-profit, 4-year institutions according to type and source of aid, by state aid group: 1996--Continued

	Low state aid group	High state aid group
Loan (except PLUS)		
Did receive loan	44.5	58.2
Did not receive loan	55.5	41.8
Work-study		
Did receive work-study	13.2	25.3
Did not receive work-study	86.8	74.7
Other type of aid (including assistantships & PLUS)		
Did receive other type of aid	11.0	13.4
Did not receive other type of aid	89.0	86.6

[1]The columns sum to 100 vertically for each selected characteristic.
[2]Veterans Administration/Department of Defense.

NOTE: Detail may not sum to total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Full-time undergraduate aid recipients attending private, not-for-profit, 4-year institutions in the high state aid group received larger aid packages than those attending institutions in the low state aid group. The average financial aid award was $10,564 in the high state aid group compared with $8,136 in the low state aid group (table 27).

Full-time undergraduate aid recipients attending private, not-for-profit, 4-year institutions in the high state aid group received an average institutional aid award of $5,299 compared with $3,721 by those in the low state aid group. They also received larger state aid awards, $2,667 compared with $1,790 by those attending in the low state aid group.

Table 27—Average total, state, institutional, employer, federal and other aid source amounts awarded to full-time undergraduates in the low and high state aid groups attending private, not-for-profit, 4-year institutions, by state aid group: 1996

	Total aid	State aid	Institutional aid	Employer aid	Federal aid	Other source of aid
Total	$10,173	$2,572	$5,103	$3,902	$6,392	$2,563
State aid group						
High state aid group	10,564	2,667	5,299	3,852	6,401	2,326
Low state aid group	8,136	1,790	3,721	--	6,336	3,443

--Sample size too small for a reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Full-time undergraduate aid recipients attending private, not-for-profit, 4-year institutions in the high state aid group received larger grants than did those in the low state aid group. The average grant amount received by those in the high state aid group was $6,420 compared with $4,366 by those in the low state aid group (table 28). In contrast, full-time undergraduates attending private, not-for-profit, 4-year institutions in the low state aid group received larger average loans than did those in the high state aid group. The average loan was $5,215 for those in the low state aid group and $4,516 in the high state aid group.

Table 28—Average total aid, grant aid, work-study, loan and other aid type amounts awarded to full-time undergraduates in the low and high state aid groups attending private, not-for-profit, 4-year institutions, by state aid group: 1996

	Total aid	Grant aid	Work-study	Loan	Other type of aid
Total	$10,173	$6,111	$1,392	$4,615	$6,756
State aid group					
High state aid group	10,564	6,420	1,359	4,516	6,782
Low state aid group	8,136	4,366	1,684	5,215	6,603

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

As noted earlier, full-time undergraduates attending private, not-for-profit, 4-year institutions in the high state aid group were charged a higher average tuition than those in the low state aid group (table 24). Subtracting state aid from tuition still results in full-time undergraduates in private, not-for-profit, 4-year institutions in the high state aid group paying a higher mean net tuition than did those in the low state aid group. Undergraduates in the high

state aid group paid $11,573 tuition, after state aid was subtracted, compared with $8,086 paid by those in the low state aid group (table 29). After subtracting the combination of state aid and institutional aid, undergraduates in the high state aid group paid $8,303, compared to $6,647 in the low state aid group; this difference was not significant. After subtracting all grant aid from the tuition, the mean net tuition of $5,962 paid by those in the low state aid group was no longer significantly different than the $7,841 paid by those in the high state aid group.

Table 29—Average price of attendance for full-time undergraduates in the low and high state aid groups attending private, not-for-profit, 4-year institutions, by state aid group: 1996

	Low state aid group	High state aid group
Price of attendance		
Tuition and fees	$8,403	$12,417
Tuition and fees minus state aid*	8,086	11,573
Tuition and fees minus state aid minus institutional aid	6,647	8,303
Tuition and fees minus all grants, regardless of source*	5,962	7,841

*Some state aid received may not be in the form of a grant.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Full-time dependent undergraduates with family incomes of $80,000 or more attending private, not-for-profit, 4-year institutions in the high state aid group paid net tuition of $12,300 compared with $9,348 paid by those in the low state aid group (table 30). Dependent students from families with incomes less than $20,000 attending institutions in the high state aid group paid a net tuition of $6,105, which was not significantly different than the $5,055 net tuition paid by those in the low state aid group. As noted in table 24, low-income dependent undergraduates with income less than $20,000 who attended institutions in the high state aid group were charged a tuition of $13,116 compared with $9,048 for those in the low state aid group. The fact that the difference was not significant after grant aid was subtracted from the tuition suggests that student grants helped equalize the tuition paid by low-income undergraduates in the high state aid group compared with those in the low state aid group.

Table 30—Average net tuition for full-time undergraduates in the low and high state aid groups attending private, not-for-profit, 4-year institutions, by state aid group and income level: 1996

	Low state aid group	High state aid group
Total	$5,962	$7,841
	Dependent student	
Income		
Less than $20,000	5,055	6,105
$20,000-$39,999	5,247	5,368
$40,000-$59,999	5,548	7,321
$60,000-$79,999	7,716	9,606
$80,000 or more	9,348	12,300
	Independent student	
Income		
Less than $5,000	4,310	5,170
$5,000-$9,999	5,234	--
$10,000-$19,999	6,005	2,228
$20,000 or more	5,534	5,462

--Sample size too small for a reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

UNDERGRADUATES ATTENDING PUBLIC LESS-THAN-4-YEAR INSTITUTIONS

Undergraduates attending public less-than-4-year institutions in the high state aid group were charged higher tuition than were those in the low state aid group (table 31). Undergraduates attending public less-than-4-year institutions in the high state aid group were charged an average tuition and fees of $921 compared with those in the low state aid group whose tuition was $498. The average tuition charged to dependent undergraduates in each income category was larger in the high state aid group than for the low state aid group.

Table 31—Average tuition and fees charged for undergraduates in the low and high state aid groups attending public less-than-4-year institutions, by state aid group and income level: 1996

	Low state aid group	High state aid group
Total	$498	$921
	Dependent student	
Income		
Less than $20,000	748	1,382
$20,000-$39,999	655	1,242
$40,000-$59,999	638	1,286
$60,000-$79,999	603	1,125
$80,000 or more	474	1,132
	Independent student	
Income		
Less than $5,000	555	910
$5,000-$9,999	372	948
$10,000-$19,999	511	824
$20,000 or more	338	584

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Table 32 shows that undergraduates attending public less-than-4-year institutions in the high or low state aid group did not differ significantly from one another on any of the variables listed, with one exception. Dependent undergraduates attending public less-than-4-year institutions in the low state aid group were more likely to have incomes between $20,000 and $39,999 than those in the high state aid group, 33 compared with 23 percent. The percentages in the other income categories did not differ significantly across the two groups. This includes those dependent students with income of less than $20,000, 17 percent in both the high and the low state aid groups.

Table 32—Percentage distribution* of undergraduates in the low and high state aid groups attending public less-than-4-year institutions according to selected student characteristics, by state aid group: 1996

	Low state aid group	High state aid group
Total	100.0	100.0
Gender		
Male	42.0	43.1
Female	58.0	56.9
Dependency level		
Dependent	41.0	40.6
Independent	59.0	59.4
Marital status		
Not married	69.9	74.9
Married	28.0	22.2
Separated	2.2	3.0
Age		
23 or younger	47.2	46.5
24-30	19.6	20.7
31-39	15.4	19.6
40 or older	17.9	13.2
Race/ethnicity of student		
White, non-Hispanic	71.2	72.6
Black, non-Hispanic	11.2	15.2
Hispanic	11.5	7.9
Asian/Pacific Islander	3.6	3.3
American Indian/Alaskan Native	2.3	0.7
Other	0.3	0.4
Number of dependents, independent student		
Student had one or more dependents	33.0	30.5
Student did not have dependents	67.0	69.5
Income, dependent student		
Less than $20,000	17.0	17.3
$20,000-$39,999	33.3	22.7
$40,000-$59,999	23.9	26.1
$60,000-$79,999	13.7	19.1
$80,000 or more	12.2	14.9
Income, independent student		
Less than $5,000	11.6	10.9
$5,000-$9,999	13.7	12.9
$10,000-$19,999	22.5	21.1
$20,000 or more	52.3	55.1

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Table 32—Percentage distribution* of undergraduates in the low and high state aid groups attending public less-than-4-year institutions according to selected student characteristics, by state aid group: 1996 --Continued

	Low state aid group	High state aid group
Undergraduate level		
First year/freshman	72.3	68.7
Second year/sophomore	27.4	30.6
Third year/junior	0.4	0.6
Fourth year or more/senior	0.0	0.1
Student attended institution in state of legal residence		
Student attended institution in state of legal residence	96.0	97.7
Student did not attend institution in state of legal residence	4.0	2.3
First-generation student		
Student was first-generation	52.3	58.1
Student was not first-generation	47.7	41.9
Attendance intensity		
Full-time	36.6	33.2
Part-time	63.4	66.8
Grade point average		
Less than 2.00	21.1	22.6
2.00-3.49	53.9	56.1
3.50 or higher	25.0	21.3

*The columns sum to 100 vertically for each selected characteristic.

NOTE: Detail may not sum to total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Undergraduates attending public less-than-4-year institutions in the high state aid group were more likely to have received student aid from state and institutional sources. Fifteen percent of the undergraduates in public less-than-4-year institutions received state aid in the high state aid group (table 33). That compares with 2 percent of the undergraduates in the low state aid group. Undergraduates in the low state aid group were more likely to receive institutional aid than were those in the high state aid states. Ten percent of the undergraduates in the low state aid group received institutional aid compared with 2 percent of those in the high state aid group.

A larger percentage of undergraduates attending public less-than-4-year institutions in the high state aid group received a loan compared with those in the low state aid group, 10 percent compared with 6 percent. However, the percentages receiving grants or work-study did not

differ significantly. Thirty-one percent of the undergraduates received a grant in the low state aid group, as did 32 percent in the high state aid group. One percent of the undergraduates in the low state aid group received work-study, and 2 percent in the high state aid group did so. The proportion receiving any aid did not differ significantly across the two groups (35 and 39 percent).

Table 33—Percentage distribution[1] of undergraduates in the low and high state aid groups attending public less-than-4-year institutions according to type and source of aid, by state aid group: 1996

	Low state aid group	High state aid group
Total	100.0	100.0
Total aid		
Did receive aid	35.4	39.3
Did not receive aid	64.6	60.7
State aid		
Did receive state aid	1.9	15.0
Did not receive state aid	98.1	85.0
Federal aid (except VA/DOD)[2]		
Did receive federal aid	19.9	23.1
Did not receive federal aid	80.1	76.9
Institutional aid		
Did receive institutional aid	9.5	2.4
Did not receive institutional aid	90.5	97.6
Employer aid		
Did receive employer aid	7.0	8.4
Did not receive employer aid	93.0	91.6
Other source (including VA/DOD)[2]		
Did receive other source	10.8	12.8
Did not receive other source	89.2	87.2
Grant aid		
Did receive grant aid	31.0	31.5
Did not receive grant aid	69.0	68.5
Loan (except PLUS)		
Did receive loan	5.6	9.9
Did not receive loan	94.4	90.1

Table 33—Percentage distribution[1] of undergraduates in the low and high state aid groups attending public less-than-4-year institutions according to type and source of aid, by state aid group: 1996 --Continued

	Low state aid group	High state aid group
Work-study		
Did receive work-study	1.0	1.6
Did not receive work-study	99.0	98.4
Other type of aid (including assistantships & PLUS)		
Did receive other type of aid	3.8	4.6
Did not receive other type of aid	96.2	95.4

[1]The columns sum to 100 vertically for each selected characteristic.
[2]Veterans Administration/Department of Defense.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Undergraduate aid recipients in public less-than-4-year institutions received $2,140 on average compared with $1,622 received by those in the low state aid group (table 35). Those attending in the high state aid group received a larger grant, $1,449 compared with $1,102 received by those in the low state aid group (table 34). Undergraduates in the high state aid group received $577 in employer aid compared with $298 received by those in the low state aid group (table 34).

Table 34—Average total, state, institutional, employer, federal and other aid source amounts awarded to undergraduates in the low and high state aid groups attending public less-than-4-year institutions, by state aid group: 1996

	Total aid	State aid	Institutional aid	Employer aid	Federal aid	Other source of aid
Total	$1,903	$929	$590	$455	$2,331	$795
State aid group						
High state aid group	2,140	952	701	577	2,508	800
Low state aid group	1,622	738	560	298	2,112	788

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

Table 35—Average total aid, grant aid, work-study, loan and other aid type amounts awarded to undergraduates in the low and high state aid groups attending public less-than-4-year institutions, by state aid group: 1996

	Total aid	Grant aid	Work-study	Loan	Other type of aid
Total	$1,903	$1,282	$1,360	$2,831	$1,694
State aid group					
High state aid group	2,140	1,449	--	2,808	1,755
Low state aid group	1,622	1,102	--	2,875	1,616

--Sample size too small for a reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

As shown in table 31, tuition charged to undergraduates in public less-than-4-year institutions was higher for those in the high state aid group compared with those attending in the low state aid group. Undergraduates in the high state aid group were charged $921 and those in the low state aid group, $498 (table 36). Those attending institutions in the high state aid group also faced a higher tuition after subtracting state aid from the tuition, $793 compared with $485. The differences in tuition persisted after adding institutional aid to the aid total. Finally, when all grant aid was subtracted from the tuition, the net tuition paid by those in the high state aid group was $639 compared with $316 paid by those in the low state aid group.

Table 36—Average price of attendance for undergraduates in the low and high state aid groups attending public less-than-4-year institutions, by state aid group: 1996

	Low state aid group	High state aid group
Price of attendance		
Tuition and fees	$498	$921
Tuition and fees minus state aid*	485	793
Tuition and fees minus state aid minus institutional aid	439	781
Tuition and fees minus all grants, regardless of source*	316	439

*Some state aid received may not be in the form of a grant.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

The difference in average tuition paid between students in the two state aid groups was evident in every dependent student income category. For example, those students with family income less than $20,000 paid a net tuition of $644 in the high state aid group compared with

$261 in the low state aid group (table 37). Those with income between $20,000 and $39,999 paid a net tuition of $942 in the high state aid group and $477 in the low state aid group. The difference in net tuition between the two state groups continued for dependent undergraduates in all the remaining income groups.

This discrepancy in tuition paid by undergraduates attending institutions in the two groups cannot be attributed to differences in part-time enrollment. As shown earlier, no significant difference existed between the portion of undergraduates in the high and low state aid groups who attended part-time (table 32).

Table 37—Average net tuition for undergraduates in the low and high state aid groups attending public less-than-4-year institutions, by state aid group and income level: 1996

	Low state aid group	High state aid group
Total	$316	$639
	Dependent student	
Income		
Less than $20,000	261	644
$20,000-$39,999	477	942
$40,000-$59,999	506	1,234
$60,000-$79,999	444	1,117
$80,000 or more	388	1,118
	Independent student	
Income		
Less than $5,000	133	210
$5,000-$9,999	197	392
$10,000-$19,999	275	471
$20,000 or more	255	389

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

SUMMARY AND CONCLUSIONS

The analysis presented in this report suggests that undergraduates attending institutions in states that awarded higher levels of student financial aid paid higher tuition and received more student aid than those attending institutions in states that provided less student financial aid. This difference presents a natural comparison that helps inform the debate between proponents of high tuition/high aid and low tuition-low aid. It may be that some of the differences reported for undergraduates attending institutions in the high and low state aid groups represent variation in the population living (or attending school) in the states that make up the two groups.

Institutions in the 16 low state aid states enrolled a smaller percentage of the nation's undergraduates than did those in the ten high state aid states. Most undergraduates attended institutions in the state in which they live. Table 15 shows that 86 percent of the undergraduates in both the high and low state aid groups attended an institution in the state in which they lived. Undergraduates in the low state aid group may have different, and perhaps more limited, institutional choices than those in the high state aid group. These state differences are beyond the reach of the NPSAS:96 data, but should be considered in future research on the role states play in the provision of postsecondary education.

States with a large number of undergraduates in private, not-for-profit institutions might develop a state student financial aid program and charge higher tuition in public institutions than states with fewer undergraduates enrolled in private, not-for-profit institutions[29]. The results are consistent with this proposition. More than twice as many undergraduates enrolled in private, not-for-profit, 4-year institutions in the high state aid group compared with the low state aid group.

The fact that more undergraduates attended private, not-for-profit, 4-year institutions in the high state aid group than in the low state aid group provides part of the explanation for the higher average tuition paid by undergraduates in the latter group. The difference in average tuition may also be related to the lower chance of enrolling in a public less-than-4-year

[29]Johnstone, Bruce. "Patterns of Finance." *The Review of Higher Education*. (Spring 1998), pp. 243-255.

institution in the high state aid group compared with the low state aid group. Enrollment in public 4-year institutions did not differ significantly between the two groups.

Enrollment percentage differences among the three institutional sectors did not account for all of the variation in average tuition charged to undergraduates attending institutions in the high and low state aid groups. Undergraduates attending public 4-year institutions in the high state aid group were charged higher tuition than were those in the low state aid group. Subtracting state aid from the tuition suggests that compared with those in the low state aid group, undergraduates attending public 4-year institutions in the high state aid group did not face significantly higher net tuition. However, students attending public less-than-4-year institutions in the high state aid group paid a higher average tuition, even after state aid was subtracted, than did those in the low state aid group.

The results suggest that undergraduates attending private, not-for-profit, 4-year institutions in the high state aid group were more likely to be dependent undergraduates attending full-time than were those attending private, not-for-profit, 4-year institutions in the low state aid group. One possible explanation for this difference is that the private, not-for-profit, 4-year institutions in the low state aid group faced a different competitive market for students. They had less aid to offer undergraduates and public institutions in these states charged lower tuition than was the case in the high state aid group. Private, not-for-profit, 4-year institutions in the low state aid group may adapt to this environment by enrolling more part-time undergraduates than private, not-for-profit, 4-year institutions in the high state aid group. Another contributing factor may be the fact that the low aid states have fewer citizens, on average, than the high aid states. The lower density of population may result in a smaller base of potential students. By including more part-time students, these institutions may compensate for the smaller enrollment base.

The net tuition paid by dependent undergraduates in public less-than-4-year institutions was higher in every income group for those in the high state aid group compared with those in the low state aid group. These institutions may provide access for low-income undergraduates. However, even with state aid and all other grants subtracted from tuition, undergraduates with incomes below $20,000 paid a higher tuition if they attended a public less-than-4-year institution in the high state aid group rather than in the low state aid group. Further, the lack of any significant enrollment percentage difference for undergraduates in the different income categories in the high and low state aid groups suggests that the higher net tuition did not have a negative effect on enrollment of low-income undergraduates.

The combination of federal, state and private grant aid does not equalize the price of attendance for undergraduates attending public less-than-4-year institutions in the high state aid group compared with those attending in the low state aid group. A family will pay several hundred dollars more, on average, to attend a public less-than-4-year institution in the high state aid group than in the low state aid group.

Student characteristics of interest for issues of access did not differ systematically across the low and high state aid groups. The percentage of the enrolled undergraduates that were first-generation college undergraduates was greater in the high state aid group than in the low. In addition, there was no significant difference in the percentage of white, non-Hispanic undergraduates, with 73 percent in both the high and low state aid groups. Minority enrollment did not differ between the two state aid groups although the composition of the minority population may reflect regional differences.

One of the basic concerns about moving to a high tuition/high aid approach is that low-income undergraduates might be dissuaded from applying because of the high, published tuition. It is not possible to determine which undergraduates did not apply for college using NPSAS:96 data. However, using NPSAS data permits comparison of the percentage of enrollment represented by undergraduates from different income groups.

The results show that undergraduates not only faced a higher advertised tuition, but they paid a higher average net tuition in the high state aid group than the low state aid group. It is reasonable to believe that fewer low-income undergraduates would enroll in postsecondary education in the high state aid group than the low state aid group because of the higher average tuition both before and after grant aid was awarded. This was not the case. Low-income undergraduate enrollment is measured here as the percentage of the enrolled undergraduates who are dependents and have incomes less than $20,000. By this measure, no significant difference existed in the percentage of undergraduate enrollment represented by those with family incomes under $20,000. No statistical difference existed for the percentage of dependent undergraduates with incomes below $20,000 enrolled in any one of the three major institutional sectors in the high and low state aid groups.[30]

Low-income undergraduates may make choices about where they attend college based on other factors than price of attendance. It may also be that the state defines a set of institutional

[30] For private, not-for-profit, 4-year institutions, this proportion was compared for full-time undergraduates only.

choices for students who cannot afford to travel out of state. Finally, the tuition differences may be small enough so they do not restrict enrollment.

These tables suggest that differences among states may be relevant for federal student financial aid policy. Undergraduates attending institutions in the high state aid group were more likely to receive federal student financial aid than were those in the low state aid group. States where undergraduates pay a higher average tuition attract more federal student financial aid than states where undergraduates pay a lower tuition. In part, this is due to the larger percentage of enrollment in private, not-for-profit, 4-year institutions and in part to higher tuition in the public institutions. State tuition and student aid policy does affect the probability that undergraduates in the state will receive federal student financial aid.

APPENDIX A: GLOSSARY

This glossary describes the variables used in this report. The variables were taken directly from the NCES NPSAS:96 Undergraduate Data Analysis System (DAS). This is an NCES software application that generates tables from the NPSAS:96 data. A description of the DAS software is in appendix B. The variable names in the right margin correspond to the names of the variables in the DAS. The variables are arranged in alphabetical order by variable label.

Age as of 12/31/95 **AGE**

23 or younger
24-30
31-39
40 or older

Attendance intensity **ATTEND2**

Student's attendance status in September 1995 as defined by the institution.

Full-time
Part-time

Dependency status **DEPEND**

Student's dependency status.

Dependent Students were financially dependent if they did not meet any of the criteria for independence (see below).

Independent A student was considered independent by meeting one of the following criteria:

- was 24 or older as of 12/31/95.
- was a veteran.
- was an orphan or ward of the court.
- had legal dependents, other than spouse.
- was married, and not claimed by parents on 1995 tax returns.
- was a graduate student and not claimed as a dependent by parents on 1995 tax return.

Employer aid, total **EMPLYAMT**

Total amount of employer aid received by the student. Employer aid is aid received from the business, corporation, institution, or individual by whom the student is employed. This variable includes tuition waivers for employees of postsecondary institutions and their dependents. The percentage of students with employer aid is the percentage with positive amounts recorded for this variable. The average amount received is the average of all students who received employer aid.

Federal aid, total **TFEDAID**

Total amount of federal financial aid, including loans, grants, work-study, and all other federal aid the student received, excluding Veterans Administration/Department of Defense aid. The percentage of students who received any federal aid is the percentage with positive amounts recorded for this variable. The average amount received is the average of all students who received federal aid.

Gender of student **GENDER**

Male
Female

Grade point average **GPA2**

Student's grade point average during 1995. The grade point average format used by each institution was identified and converted to the 0.0-4.0 scale.

Less than 2.00
2.00-3.49
3.50 or higher

Grant aid, total **TOTGRT**

Total amount of all grants and scholarships, federal, institutional and other aid received by the student. Grants are a type of student financial aid that does not require repayment or employment. Grants include scholarships and fellowships. Tuition waivers and employer aid are considered grant aid. The percentage of students with grants is the percentage with positive amounts recorded for this variable. The average amount received is the average of all students who received grants.

Highest education completed by either parent 1995-96 **PAREDUC**

Highest level of education completed by the undergraduate's parents. This was used to determine whether the student was a first-generation student.

Student was first-generation: Parent with highest education had less than a high school education, or a high school diploma

Student was not first-generation: Parent with highest education had any one of the following as highest degree:

- less than one-year occupational\trade\technical school
- at least one year, but less than two years of occupational\trade\technical school
- two or more years of occupational\trade\technical school
- less than two years of college
- two or more years of college including AA
- bachelor's degree (4-5 years)
- master's degree or equivalent
- first-professional degree
- doctorate (Ph.D., Ed.D.)

Income and dependency level **INCOME**

Income level and dependency status for the student. Parents' or guardians' income is the income source for dependent students; the source of independent students' income combines their own earnings and those of their spouse, if married.

Dependent student:

Less than $20,000	Income of less than $20,000 in 1994
$20,000 to 39,999	Income between $20,000 and $39,999 in 1994
$40,000 to 59,999	Income between $40,000 and $59,999 in 1994
$60,000 to 79,999	Income between $60,000 and $79,999 in 1994
$80,000 or more	Income of $80,000 or higher in 1994

Independent student:

Less than $5,000	Income of less than $5,000 in 1994
$5,000 to 9,999	Income between $5,000 and $9,999 in 1994
$10,000 to 19,999	Income between $10,000 and $19,999 in 1994
$20,000 or more	Income of $20,000 or higher in 1994

Income percentile rank **PCTALL2**

Income percentiles for all students. It is equal to the proportion of the sample who had an income lower than that recorded for the student. It was calculated separately for dependent and independent students. Thus, each ranking compares the student only to other students of the same dependency status. It uses parents' income if student is dependent and student's own income when student is independent.

Institutional aid, total **INSTAMT**

Indicates the total amount of institutional aid the student received. Institutional aid includes grants and loans from the institution attended, institution-sponsored work-study, and all other institutional aid, including research and teaching assistantships. Institutional aid also includes assistantships funded by federal research grants. The percentage of students with institutional aid is the percentage with positive amounts recorded for this variable. The average amount received is the average of all students who received institutional aid.

Institution in state of legal residence **SAMESTAT**

Indicates whether the student attended school in the same state (in-state) as his/her state of legal residence.

Institutional type and control **SECTOR**

Institutional type as defined by institutional level and control. Institutional type refers to the institution's highest offering (less-than-2-year, 2-year and 4-year), and control is the source of revenue and control of operations (public, private not-for-profit, and private for-profit).

Public, 4-year
Public less-than-4-year
Private, not-for-profit, 4-year
Private, not-for-profit, 2-year or less
Private, for-profit, 2-year or more
Private, for-profit, less-than-2-year

Loan, total **TOTLOAN**

Indicates the total amount of loans the student received, regardless of the source. Loans are a type of student financial aid that advance funds and are evidenced by a promissory note requiring the recipient to repay the specified amounts under prescribed conditions. The percentage of students with loans is the percentage with positive amounts recorded for this variable. The average amount received is the average of all students who received loans. This does not include PLUS.

Marital status **SMARITAL**

Student's marital status on the date the student applied for financial aid, based on the Free Application for Federal Student Aid (FAFSA), or if the student did not apply for financial aid, marital status as reported by the institution.

Not married	Student was not married.
Married	Student was married.
Separated	Student was separated.

Number of dependents **NDEPEND**

For independent students, the number of the student's non-spouse dependents. Refers to student's own family, rather than parents' family, regardless of whether the student is dependent or independent. Does not include spouse or student.

Student had one or more dependents.
Student did not have dependents.

Other source, total **OTHERSCR**

For students who received aid, total aid from sources that could not be classified as federal, state, or institutional. Includes employer aid, veteran's benefits, vocational rehabilitation, and Job Training Partnership Act (JTPA) program funds. The percentage of students with other aid is the percentage with positive amounts recorded for this variable. The average amount received is the average of all students who received aid from these sources.

Other type of aid, total **TOTOTHR**

Indicates the total amount of aid received that was not classified as grants, loans, or work-study. It also includes teaching and research assistantships. This is the sum of other federal amounts, other state amounts and other institutional amounts. The percentage of students with other type of aid is the percentage with positive amounts recorded for this variable. The average amount received is the average of all students who received aid from these sources.

Race/ethnicity of student **RACE**

American Indian/ Alaskan Native	A person having origins in any of the original peoples of North America and who maintains cultural identification through tribal affiliation or community recognition.
Asian/Pacific Islander	A person having origins in any of the Asian or Pacific Islander original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or Pacific Islands. This includes people from China, Japan, Korea, the Philippine Islands, Samoa, India and Vietnam.
Black, non-Hispanic	A person having origins in any of the black racial groups of Africa, and not of Hispanic origin.
Hispanic	A person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.
White, non-Hispanic	A person having origins in any of the original peoples of Europe, North Africa, or the Middle East (except those of Hispanic origin).
Other	A person not in one of the above categories.

State aid, total **STATEAMT**

Indicates the total amount of state aid received. State aid includes state grants, loans, state-sponsored work-study, and all other state financial aid. The percentage of students who received state aid is the percentage with positive amounts recorded for this variable. The average amount received is the average of all students who received state aid.

State aid group **INSSTATE**

Indicates the state where the NPSAS institution is located. The state aid groups are based on data from the National Association of State Student Grant Aid Programs (NASSGAP). The figure used is the estimated state grant dollars per full-time equivalent undergraduate enrollment. National estimated state grant dollars per full-time equivalent undergraduate enrollment in 1995-96 was $275.

Low state aid group:	Alabama, Alaska, Arizona, Delaware, District of Columbia, Hawaii, Idaho, Montana, Nebraska, Nevada, New Hampshire, North Dakota, South Dakota, Texas, Utah, Wyoming (estimated state grant dollars per full-time equivalent undergraduate enrollment of $100 or less)
Middle state aid group:	Arkansas, California, Colorado, Connecticut, Florida, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Mississippi, Missouri, North Carolina, Ohio, Oklahoma, Oregon, Rhode Island, South Carolina, Tennessee, Washington, West Virginia, Wisconsin.
High state aid group:	Georgia, Illinois, Indiana, Minnesota, New Jersey, New Mexico, New York, Pennsylvania, Vermont, Virginia (estimated state grant dollars per full-time equivalent undergraduate enrollment of $400 or more)

Total aid **TOTAID**

Total amount of financial aid received from all sources in 1995-96, including federal, state, institution, and other sources received by the student. The percentage of students who received any financial aid is the percentage with positive amounts recorded for this variable. The average amount received is the average of all students who received any financial aid.

Tuition and fees-amount for terms attended **TUITION**

Actual amount of tuition charged the student for the terms attended, as reported by the institution. Student report was used if institutional data were not available or if the student attended more than one institution during the academic year. The average amount is the average of all students, including those who did not have any tuition or fees.

Less than $1,000	Tuition less than $1,000 in 1996
$1,000-$2,499	Tuition between $1,000 and $2,499 in 1996
$2,500-$4,999	Tuition between $2,500 and $4,999 in 1996
$5,000-$9,999	Tuition between $5,000 and $9,999 in 1996
$10,000 or more	Tuition of $10,000 or higher in 1996

Tuition minus state aid **NETTUIT1**

Tuition and fees less state aid amount. If state aid amount is zero, this variable is equal to tuition and fees. If tuition and fees minus the state aid is less than zero, this variable is recorded as zero. Tuition and fees are for all terms attended. For those attending only one institution during 1995-96, it is actual amount of tuition charged. State aid is the total amount of state aid received by the student.

Tuition minus sum of state and institutional aid **NETTUIT2**

Tuition and fees less the sum of the state and institutional aid amounts. If state and institutional aid amounts are zero, then this variable is equal to the tuition and fees. If the calculation result is less than zero, this variable is recorded as zero. State aid is the total amount of state aid received by the student. Institutional aid is the total institutional aid amount received during the year. This variable was calculated for only those students who attended one institution during 1995-96.

Tuition minus all grants **NETCST9**

Indicates tuition and fees minus grants. Negative values were recorded as zero. Grant aid is the total amount of all grants and scholarships (federal, state, institutional and other) received by the student.

Undergraduate level **UGLEVEL1**

Student's year in college or university:

1st year-freshman
2nd year-sophomore
3rd year-junior
4th year or more-senior

Work-study, total **TOTWKST**

Indicates the total amount of all work study awards received. It is the sum of federal work-study amount, state work-study amount, institutional work-study amount and other unclassified work-study amount. Total work-study is one component of total amount of all aid, along with total grant amount, total loan amount, and total other amount. The percentage of students with work-study aid is the percentage with positive amounts recorded for this variable. The average amount received is the average of all students who received work-study aid.

APPENDIX B: TECHNICAL NOTES

THE 1995-96 NATIONAL POSTSECONDARY STUDENT AID STUDY (NPSAS:96)

The 1995-96 National Postsecondary Student Aid Study (NPSAS:96) is a comprehensive nationwide study conducted by the Department of Education's National Center for Education Statistics (NCES) to determine how students and their families pay for postsecondary education. It also describes demographic and other characteristics of students enrolled. The study is based on a nationally representative sample of all students in postsecondary education institutions, including undergraduate, graduate, and first-professional students. Students attending all types and levels of institutions are represented in the sample, including public and private institutions and less-than-2-year institutions, 2-year institutions, and 4-year colleges and universities. The study is designed to address the policy questions resulting from the rapid growth of financial aid programs, and the succession of changes in financial aid program policies since 1986. The first NPSAS study was conducted in 1986-87, then again in 1989-90, and 1992-93.[31]

DATA ANALYSIS SYSTEM

The estimates presented in this report were produced using the NPSAS:96 Data Analysis Systems (DAS). The DAS software makes it possible for users to specify and generate their own tables from the NPSAS:96 data. With the DAS, users can replicate or expand upon the tables presented in this report. In addition to the table estimates, the DAS calculates proper standard errors[32] and weighted sample sizes for these estimates. For example, table B.1 contains standard errors that correspond to table 4, and was generated by the DAS. If the number of valid cases is too small to produce a reliable estimate (less than 30 cases), the DAS prints the message "low-N" instead of the estimate.

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[31]For more information on the NPSAS survey, consult U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1995-96 (NPSAS:96) Methodology Report, NCES 98-073 by John A. Riccobono, Roy W. Whitmore, Timothy J. Gabel, Mark A. Traccarella, Daniel J. Pratt and Lutz K. Berkner. Project Officer: Andrew G. Malizio. Washington, D.C.: 1997.

[32]The NPSAS:96 samples are not simple random samples and, therefore, simple random sample techniques for estimating sampling error cannot be applied to these data. The DAS takes into account the complexity of the sampling procedures and calculates standard errors appropriate for such samples. The method for computing sampling errors used by the DAS involves approximating the estimator by the linear terms of a Taylor series expansion. The procedure is typically referred to as the Taylor series method.

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Table B.1– Standard errors for table 4: Percentage of undergraduates who received state aid and average state aid amount awarded, by selected characteristics: 1996

	Received state aid	Average state aid award
Total	0.4	47.7
State aid group		
High state aid group	1.2	80.8
Middle state aid group	0.5	62.0
Low state aid group	0.5	99.9
Institution type		
Public 4-year	0.6	62.9
Public less-than-4-year	0.6	64.4
Private, not-for-profit, 4-year	1.3	95.8
Private, not-for-profit, 2-year or less	3.0	237.4
Private, for-profit, 2-year or more	2.5	179.3
Private, for-profit, less-than-2-year	2.7	441.8
Tuition and fees for the terms attended		
Less than $1,000	0.5	40.2
$1,000-$2,499	0.8	42.3
$2,500-$4,999	1.1	90.4
$5,000-$9,999	1.4	91.6
$10,000 or more	1.6	135.9
Gender		
Male	0.5	60.8
Female	0.5	51.1
Dependency status		
Dependent	0.5	56.3
Independent	0.5	68.6
Marital status		
Not married	0.5	49.9
Married	0.5	84.7
Separated	3.2	115.6
Age		
23 or younger	0.5	51.8
24-30	0.6	71.0
31-39	0.7	95.2
40 or older	0.7	180.2
Number of dependents, independent student		
Student had one or more dependents	0.8	70.3
Student did not have dependents	0.4	50.7

Table B.1– Standard errors for table 4: Percentage of undergraduates who received state aid and average state aid amount awarded, by selected characteristics: 1996--Continued

	Received state aid	Average state aid award
Race/ethnicity of student		
White, non-Hispanic	0.4	48.0
Black, non-Hispanic	1.2	79.0
Hispanic	1.0	131.2
Asian/Pacific Islander	1.0	154.1
American Indian/Alaskan Native	3.2	246.3
Other	1.9	447.7
Income, dependent student		
Less than $20,000	1.1	88.1
$20,000-$39,999	0.9	65.2
$40,000-$59,999	0.8	76.2
$60,000-$79,999	0.7	101.6
$80,000 or more	0.4	146.7
Income, independent student		
Less than $5,000	1.2	69.9
$5,000-$9,999	1.2	110.5
$10,000-$19,999	0.8	75.4
$20,000 or more	0.4	133.9
Undergraduate level		
First year/freshman	0.8	63.8
Second year/sophomore	0.7	74.4
Third year/junior	0.8	68.2
Fourth year or more/senior	0.7	81.9
Student attended institution in state of legal residence		
Student attended institution in state of legal residence	0.5	47.5
Student did not attend institution in state of legal residence	0.4	152.1
First-generation student		
Student was first-generation	0.8	54.5
Student was not first-generation	0.5	59.3
Attendance intensity		
Full-time	0.7	55.8
Part-time	0.3	47.9
Grade point average		
Less than 2.00	0.6	58.8
2.00-3.49	0.5	49.1
3.50 or higher	0.7	88.2

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1995-96 National Postsecondary Student Aid Study (NPSAS:96), Undergraduate Data Analysis System.

In addition to tables, the DAS will also produce a correlation matrix of selected variables to be used for linear regression models. Included in the output with the correlation matrix are the design effects (DEFTs) for each variable in the matrix. Since statistical procedures generally compute regression coefficients based on simple random sample assumptions, the standard errors must be adjusted with the design effects to take into account the NPSAS:96 stratified sampling method. (See discussion under "Statistical Procedures" below for the adjustment procedure.)

For more information about the NPSAS:96 Data Analysis Systems, consult the NCES DAS Website (WWW.PEDAR-DAS.org) or contact:

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STATISTICAL PROCEDURES

The descriptive comparisons were tested in this report using Student's t statistic. Differences between estimates are tested against the probability of a Type I error, or significance level. The significance levels were determined by calculating the Student's t values for the differences between each pair of means or proportions and comparing these with published tables of significance levels for two-tailed hypothesis testing.

Student's t values may be computed to test the difference between estimates with the following formula:

$$t = \frac{E_1 - E_2}{\sqrt{se_1^2 + se_2^2}} \qquad (1)$$

where E_1 and E_2 are the estimates to be compared and se_1 and se_2 are their corresponding standard errors. This formula is valid only for independent estimates. When estimates are not independent a covariance term must be added to the formula. If the comparison is between the mean of a subgroup and the mean of the total group, the following formula is used:

$$\frac{E_{sub} - E_{tot}}{\sqrt{se^2_{sub} + se^2_{tot} - 2p\, se^2_{sub}}} \qquad (2)$$

Where p is the proportion of the total group contained in the subgroup.[33]

When comparing two percentages from a distribution that adds to 100 percent, the following formula is used:

$$\frac{E_1 - E_2}{\sqrt{se_1^2 + se_2^2 - 2(r)se_1 se_2}} \quad (3)$$

where r is the correlation between the two estimates.[34] The estimates, standard errors, and correlations can all be obtained from the DAS.

There are hazards in reporting statistical tests for each comparison. First, comparisons based on large t statistics may appear to merit special attention. This can be misleading, since the magnitude of the t statistic is related not only to the observed differences in means or percentages but also to the number of students in the specific categories used for comparison. Hence, a small difference compared across a large number of students would produce a large t statistic.

A second hazard in reporting statistical tests for each comparison occurs when making multiple comparisons among categories of an independent variable. For example, when making paired comparisons among different levels of income, the probability of a Type I error for these comparisons taken as a group is larger than the probability for a single comparison. When more than one difference between groups of related characteristics or "families" is tested for statistical significance, one must apply a standard that assures a level of significance for all of those comparisons taken together.

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[33] U.S. Department of Education, National Center for Education Statistics. *A Note from the Chief Statistician*, No. 2. 1993.
[34] *Ibid.*

Comparisons were made in this report only when $p<=.05/k$ for a particular pairwise comparison, where that comparison was one of k tests within a family. This guarantees both that the individual comparison would have $p<=.05$ and that for k comparisons within a family of possible comparisons, the significance level for all the comparisons will sum to $p<=.05$.[35]

For example, in a comparison of the percentages of males and females who enrolled in postsecondary education only one comparison is possible (males versus females). In this family, $k=1$, and the comparison can be evaluated without adjusting the significance level. When students are divided into five racial-ethnic groups and all possible comparisons are made, then $k=10$ and the significance level of the each test must be $p<=.05/10$ or $p<=.005$. The formula for calculating family size (k) is as follows:

$$k = [\, j * (j - 1) \,] / 2 \qquad (4)$$

Where j is the number of categories for the variable being tested. In the case of race-ethnicity, there are five racial-ethnic groups (American Indian/Alaskan Native, Asian/Pacific Islander, black, non-Hispanic, Hispanic, and white, non-Hispanic), so substituting 5 for j in equation 4:

$$k = [\, (5)(5 - 1) \,] / 2 = 10 \qquad (5)$$

[35] The standard that $p<=.05/k$ for each comparison is more stringent than the criterion that the significance level of the comparisons should sum to $p<=.05$. For tables showing the t statistics required to ensure that $p<=.05/k$ for a particular family size and degrees of freedom, see Olive Jean Dunn, "Multiple Comparisons Among Means," *Journal of the American Statistical Association*, 56 (1961), pp. 52-64.

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